



Digitized by the Internet Archive
in 2012 with funding from
University of Toronto

4384

President's Report: Part One

UNIVERSITY OF TORONTO

PRESIDENT'S
REPORT

PART ONE

- Three

FOR THE YEAR ENDED JUNE 1968

1967-

The President's Report is being printed in three sections this year. Part I contains the Acting President's report; Part II contains the reports of the Deans and Directors and staff publications; Part III contains the list of benefactions, the tables of the Office of Statistics and Records, and the report of the Executive Vice-President (Non-Academic). Part I is being sent to all persons and institutions on our mailing list. If you do not receive copies of the other two sections and wish to receive them, please address your request to the Office of the President, University of Toronto, Toronto 181, Ontario, Canada.

LE
3
T 446
1967/68
cop. 2



CONTENTS

REPORT OF THE ACTING PRESIDENT	3
--------------------------------	---

APPENDIX

Honours	13
Deaths	19
Retirements	19
Resignations	19
Leaves of Absence	20
Promotions	21
New Appointments	25
Honorary Degrees	28
Lectures at the University	29
Scholarly Addresses by Members of the Staff	33

President

REPORT OF THE ACTING PRESIDENT

To the Governors and the Senate of the University of Toronto

Ten years ago the University of Toronto was administered for one session under the able leadership of the then Dean of Arts, Moffatt Woodside. The reason for the arrangement was unexpected; Sidney Smith had resigned to accept a post in the federal government cabinet. The session was already under way. Approximately three months after Dr. Smith's resignation, Dr. Bissell, then President of Carleton University, was chosen to take office six months later. In the interval, the Board of Governors, the Senate, the Councils and the other units of university machinery functioned normally and little, if any, momentum was lost. The University demonstrated the strength of its resources effectively and unobtrusively.

For the session 1967-68, improvisation was necessary for other reasons. Well in advance of the session, plans for Dr. Bissell's year of teaching at Harvard were completed and arrangements made for the conduct of the University's business in his absence. Over the decade the university community had grown in numbers and in strength. The year ahead would be a normal session; some new business would be undertaken, some unfinished business completed.

Of unfinished business, there were in particular four problems. These were: study of the structure of university government to enable a patched-up 1906 model to satisfy late twentieth-century requirements; review of disciplinary machinery and establishment of policies and procedures appropriate to current problems; establishment of a committee to relate human, financial and physical resources of the University as enrolment goals are reached; and action required by the report of the Presidential Advisory Committee on Instruction in Arts and Science. By June 30, 1968, none of these objectives was as close to achievement as optimistic observers had predicted a year earlier.

The inventory of achievement for the session 1967-68 is not impressively long, yet the significance of the events of the year is difficult to exaggerate. Our progress towards completion of unfinished 1966-67 business was slower than expected because of issues which are distracting all, and damaging many, universities in every part of the world.

The session began with completion, distribution and discussion of the Macpherson Committee Report. The Report attracted widespread attention and became, of its kind, a best-seller. It was widely reviewed and was reprinted in

response to demand, in addition to receiving serial publication in *The Varsity*. The analysis and recommendations were written about and debated – with and without emotion. In accordance with the decision taken at the time of publication, no machinery for implementation of any recommendation was started until time for free and far ranging discussion of the recommendations had been allowed. Before the session was over, departments, colleges and faculties had sorted out areas of likely agreement, those of greater complexity and those certain to provoke controversy. Late in the session, the Dean's Office was ready for implementation of phase one of action towards greater freedom, flexibility and equality of undergraduate educational opportunity for all students in the Faculty of Arts and Science.

If instruction in the Faculty of Arts and Science received the greatest public attention, it was not the only curriculum being reviewed. Law, Medicine and Applied Science and Engineering were all engaged in major exercises of self-examination. Business was negotiating a PH.D. programme. Forestry was assessing its roles – both graduate and undergraduate – with keen interest in a simultaneous national study of Forestry education. The Curriculum Committee for Dentistry was busy throughout the session. Architecture was ready with amendments to its curriculum at the session's end. Physical and Health Education was charting a new course.

At the same time, almost every division of the University was giving consideration to structural changes that would provide expression for the voice of students in the deliberations that determine the student's educational experience. The principle of student participation has been affirmed; the form of its expression will differ from division to division.

These introspective probings differ from normal university behaviour in their number, in their scope, and in the depth of their challenge of long-held assumptions. Curriculum analysis is, of course, a way of university life; in the contemporary review, there is great concern with the processes of instruction as well as with the relevance of material.

While the teaching divisions of the University were reviewing materials and methods of instruction, they were also engaged, with few exceptions, in absorbing additional students and staff as university enrolment moved another stage towards the ceiling that has been established. They were adjusting themselves within space limitations that are becoming more and more rigid. At the beginning of session, the McLennan Physical Laboratories building was opened with serious and gay celebrations befitting Astronomers, Computer Scientists and Physicists of high quality and style. The Medical Sciences building moved with unusual speed towards completion and occupancy. Indeed, another of the incongruities between construction and ceremony marked the progress in completion of the Medical Sciences Building. The Honourable Matthew Dymond, Minister of Health, officiated at a December cornerstone ceremony which was followed, before the session ended, by partial occupancy of the building. On the other hand, the Humanities and Social Sciences Research Library moved tortuously towards final approval. To it the University must look for space relief – but it is distant hope. Stubborn problems hold back action to achieve such priority buildings as Sir Edmund Walker Hall, Innis College, the Student Centre, the Graduate Complex, a Science Building for Botany and Geology, renovations to Wallberg and Sandford Fleming

buildings for the engineers and many other items of immediate need, including also an extension to Simcoe Hall, a new Faculty Club and the Men's Athletic building. A mixture of siting, building by-laws, fire marshal requirements and straight funding problems make implementation of continued capital expansion an exercise in patience and vigilance.

The basis for capital funding beyond June 1969 is unclear. It is understood that the Department of University Affairs awaits recommendations from the Committee on University Affairs as to the terms of a formula now employed in providing operating funds. During the session an interim capital assistance programme was announced covering the period July 1, 1964, to June 30, 1969. This retroactive policy provides 85 per cent provincial assistance towards the first \$10,000,000 of capital expenditures over the five-year period and 95 per cent contribution for expenditures in excess of \$10,000,000 with elimination of the original categories of buildings. Residence planning henceforth will be negotiated with Ontario Student Housing Corporation or with CMHC as university policy and finances permit. Since the proceeds of the National Fund capital campaign have been spent or committed, the announcement of the proposed capital formula is awaited on this campus with a mixture of interest and apprehension.

The first year's experience with operating revenue provided by means of a formula is now complete. It is too soon to predict its effects on the University's operations. Many of the implications remain to be analysed. Formula financing is attractive as a distributive arrangement, but it will be satisfactory in the long run only if the funds available for distribution increase as the family of Ontario universities grows in quality as in size. Already there is ground for concern in this University and for its Federated Colleges about grants based on students in the Faculty of Arts and Science and in relation to the counting system that will determine income from certain categories of students enrolled in the School of Graduate Studies.

Inextricably bound up with the academic structure of the Faculty is the financial problem faced by the Federated Colleges as a result of the withdrawal of direct federal government financial assistance to postsecondary education, on the one hand, and the rules governing provincial formula financing of Ontario university operating costs, on the other. Provincial support to the Federated Colleges is thought of not as a change in provincial government policies towards assisting church-related institutions but as discharge of a discontinued federal government policy using a formula whose basic component is the student enrolment as it existed when federal withdrawal occurred. Had enrolment remained proportionate, college to college, this arrangement, which has included an increase factor, would have dealt equitably, if not adequately, with the three Colleges but this ratio has not, and probably cannot, remain sufficiently constant to avoid negative consequences of unequal magnitude. At the same time, the financial relations between the University and Colleges that derive in part from legislation have worsened for the University as well as for the Colleges by reason of formula financing, except that an expedient, not likely to be employed for long, has compensated the University for fee income loss.

Formula financing has in its first year not fully met the problems of costs of medical education but this matter, with obvious applicability to other institutions, has been under active review. Formula financing, as a device for equitable,

and to a degree predictable, treatment of universities, requires a longer trial period during which more sophisticated and thorough cost studies can be secured to improve and refine the formula.

Looking ahead, the University must evaluate the implications of reaching a position of relatively inelastic student enrolment. When enrolment goals have been reached, formula financing implies the necessity of terminating existing programmes to permit initiation of new programmes. This concept presents problems new to university systems, which have traditionally operated on principles of *laissez-faire* with little, if any, interference with existing programmes. Nor does the problem begin only with the establishment of registration goals. The shadow is cast ahead. What areas of growth are to be encouraged and what restrained as maximum enrolment levels approach? Full-time Arts and Science student numbers have reached their agreed limits. Graduate School enrolment totals are reasonably clear but not yet firm policy. To assess the degree of flexibility remaining to the University in matching human, financial and physical resources, a Resource Planning Sub-Committee of President's Council began its work during the session.

Another of the problems identified for special comment – achievement of university disciplinary machinery appropriate to the contemporary university world – might well have been included in the final and fundamental item of the brief inventory of business agenda items for 1967–68, that is, examination of the structure of university government, except for the fact that its immediacy and its relative simplicity were thought to permit segregation for separate consideration. Contemporary mores and contemporary attitudes to the nature and exercise of authority identified the inadequacies of Caput as a multi-purpose disciplinary body several years ago and produce additional illustrative material each year.

The first evidence for 1967–68 was provided through *The Varsity's* reporting of the McGill University student newspaper crisis which began with the reprinting by the *McGill Daily* of portions of an article from an American publication. The article itself had been available in full text for purchase on the university campus six months before the issue was raised. Like most offences against standards of taste, both the nature of the offence and the proper authority to judge the matter lent themselves to alternative interpretations. There were ingredients of obscenity, libel and sheer bad taste in the material itself. These confused elements were confounded by the significance that had become attached to the *McGill Daily* action – it had become a university, if not a Montreal, crisis. The proper jurisdiction to consider the problem on this campus was obscure: the newspaper staff itself? its *de facto* publisher, the SAC? its *de jure* publisher, the Board of Governors?

In the event, two of these jurisdictions, the Caput representing the University administration and the SAC representing the students, considered the matter. Both bodies deplored the content of the published material; a SAC majority defeated two censure actions directed against the editor and finally accepted *The Varsity* explanation that the cause of the McGill furore needed to be put explicitly before the students of the University of Toronto if they were to understand the strong feelings in Montreal. Caput, aware of the inadequacy of its composition and traditional role when confronted by an event of this kind,

aware also of the escalation of the problem at McGill and unwilling either to lay charges or to protect *The Varsity* from charges laid by others, waited for the result of the SAC consideration and, when recalled a second time (after the SAC meeting) took no further action. Community reaction to these procedures was mixed!

Before action to establish the Committee to consider Disciplinary Procedures could be taken following this crisis, a second event occurred which again focussed concentrated attention from all sections of the community on the University and exemplified from a different point of view the inadequacy of existing disciplinary machinery. This event, which was to have twin sequels, took place during summer employment recruiting interviews held by the University Placement Service for Dow Chemical Company of Canada. An orderly, peaceful demonstration against the Canadian subsidiary of an American company identified as a contributor of war material employed by South Vietnam forces in that tragic war was turned by a militant minority of students, staff and non-university persons into an obstructive interference with access to, and egress from, the interview building. The next morning, the militant demonstrators attempted unsuccessfully to muster significant numbers of demonstrators to direct charges of war complicity against the central administration of the University.

Two more demonstrations against Dow and other companies charged with responsibility for the manufacture of war materials, and against the University administration, were attempted. None of these later efforts achieved the damaging force that broke on other North American campuses, but all created tensions, excitement and anxiety. They had several tangible results. Mr. Faulkner, the SAC President, acted to secure electoral endorsement. The election and the incidents themselves provoked widespread discussion on and off campus; a representative Placement Service Advisory Board was named; and, a little later, the long-awaited Committee on Disciplinary Procedures was formed, with an additional problem: what machinery and rules to apply in instances of campus civil disobedience involving staff, students and persons from off campus.

These two events, spaced across the session from early November to late January, claimed more administrative hours than one can, or would wish to, total. They marked for the University of Toronto the beginning of the new era of student, and to a lesser degree staff, assertiveness on non-academic matters. In *The Varsity* incident, the Students' Administrative Council claimed jurisdictional authority over a student matter of non-academic nature. Neither by law nor by its nature was the SAC an appropriate agency to deal with the matter. In law, it was not the publisher of the paper. Emotionally and intellectually, its members would have been hard-pressed to decide whether they were ruling on an editorial error in judgment, an instance of journalistic obscenity, an opportunistic exploitation of a McGill crisis, a shock effort to stimulate a wider readership, or a responsible journalistic effort to provide 20,000 intellectually sophisticated university students with information on what had caused serious harm to a neighbour university. The issue exemplified the structural weakness of a student newspaper without responsibility to any independent agency or to any explicit standards of literary style or taste. It further sharpened the question of double jeopardy implied by acceptance of the traditionally held doctrine of *in loco*

parentis. Should the student newspaper (or any student action – individual or collective) be subject to both university disciplinary procedures and to the courts of law?

Incorporation either of *The Varsity* or of the Students' Administrative Council would remove the ironic anomaly which exists with the Governors of the University serving as *de jure* publishers of *The Varsity*. Either act of incorporation would at least establish a more appropriate publishing authority. Action is under way, on student initiative, to achieve this result. Student initiative has also contributed to establishment of a Board of Trustees to manage *The Varsity*. This Board, representative of students, staff and administration, could, with time, play an influential role in contributing experience and judgment – without either hypocrisy or tyranny – to student newspaper staffs newly given authority over a potentially influential instrument of information and opinion.

The second disruptive drama – in three episodes – lent itself to a different pattern of confusion but challenged the same powerless disciplinary machinery as the first. The interruption of interviews in November 1967 was a Toronto manifestation of world-wide demonstrations against the war in Vietnam and those directly involved in producing materials of war. The issue which began as an anti-war demonstration was escalated into a Placement policy problem and then to a charge of university complicity. This matter, more than *The Varsity* issue, provided a basis for some sustained and profound discussion everywhere on the campus. It led quickly to establishment of a representative advisory committee on the Placement Service which debated at great length the justification for discriminatory and non-discriminatory placement services and found both staff and student representatives split on the issue. In the end, an open Placement Service was affirmed, but the debate on the degree to which a university as an entity can take a political stand has not ended.

The issue of obstructionism and interference with the right to interview brought polarization of student and to a limited degree staff opinion. But thought and talk, humour and disciplined moderate opinion on both sides prevented damage – physical or community – to the University. Questions of judgment on moral, ethical, political and social issues by the SAC were debated both calmly and heatedly – and very widely, before, during and after the December student election. The issue was not decided by the vote or by subsequent behavior, but many of the passive students were aroused to involvement. As in other confrontations in political democracies, many of the moderate voices seemed silenced by indifference, desires for detached analysis, dislike of irrational debate and preoccupation with more constructive and scholarly pursuits.

These issues made it apparent that the new campus politics had come to Canada. There is no assurance that universities may not be damaged or destroyed if the extremes that have been reached in the USA and in Europe, Asia and Africa become models for Canadian student and staff militants of whatever political colouring: Marxist, Maoist, Fascist, anarchist, nihilist. Moreover, current levels of university costs, political interest and the insatiable appetites for controversy of the mass media mean that no longer will the public be passive observers of a university convulsion.

Meanwhile, the most fundamental problem of the four mentioned was

pushed into the background: the establishment of a committee to study the structure of government most appropriate at the present time. The Duff-Berdahl Report had made some general suggestions about desirable features of Canadian university government, but events had already overtaken their assessment of the university community; they had not accurately foreseen the convincing assertiveness of students about university decision-making procedures. Toronto had made a start with teaching-staff assessors at meetings of the Board of Governors. Representations had been made to the provincial government to remove the barrier to full staff membership on the Board but legislative action had not been taken. Any new structure had to take into account the general political and social climate of a world in ferment; it had to take cognizance not only of its own growth and change as a federated university, but of its position as a senior member of a provincial university system evolving in relation to the newly organized Department of University Affairs and Committee on University Affairs; it had to be able to adapt itself to new methods of operating and capital financing, of securing money for research and special projects from public and private sources apart from the Department of University Affairs. Rapid and costly growth requires a less complex and more flexible machinery to deal with planning, to determine priorities, to negotiate with city and with metropolitan authorities about municipal requirements, with Ontario Student Housing Corporation, with CMHC and with students about residences, to name only some of the areas in which growth requires continual action.

In the present circumstances, the nature and function of the Board of Governors' role requires redefinition. The responsibility and authority of members of the senior administrative staff need continual review and assessment in an institution which, as recently as five years ago, had only one vice-president. The Senate has postponed thoroughgoing self-appraisal in anticipation of a more fundamental examination of university structure. Federation based on late nineteenth-century subject interests and added to by two multi-faculty constituent colleges and by distant Arts and Science colleges is urgently in need of reworking. The relations of faculties, schools and institutes differing substantially in size introduces fresh problems. There are single disciplines in the Faculty of Arts and Science which occupy space and operate on budgets larger than other whole faculties, schools and institutes. Centres and institutes have proliferated, with differing emphases on teaching and research. The computer, in its very short life, is rapidly growing to be as essential and costly a multi-division service instrument as a substantial library and it has teaching functions as well.

This illustrative list of university problems, most of which are simply by-products of age, indicates the exercise in frustration and endurance that decision-making had become. President's Council had emerged as an imaginative and valuable instrument for advice on major university questions and for establishment of priorities; a body in which Governors, members of the teaching staff and administrators could take part together. But it was not a decision-making body. It was without statutory authority and it had been established without student participation – offered or claimed. President's Council was a useful interim device; it was not the answer to the University's structural needs. Only in the final days of the session, after the President's return to Toronto, did it appear

possible to launch the multi-level inquiry into appropriate administrative arrangements for a university trying to cope with contemporary problems. The session ended with indications of early action.

During the session the complicated arrangements necessary to give the Royal Ontario Museum independence were nearly completed. By the end of June only a few final details remained to be agreed on. Officially, the Museum was autonomous. The separation is not expected to interfere with harmonious and fruitful co-operation on scholarly enterprises of mutual interest.

A new contract between the University and The College of Education, strengthening the association and improving the mechanisms by means of which the University, the Colleges and the Department of Education resolve matters of common interest, was negotiated.

It remains for me to express gratitude to colleagues for their advice and assistance. The Chairman and members of the Board of Governors were understanding, helpful and fully supportive in a year when the pressures on them individually and collectively to act vigorously in the crises must have been almost irresistible. My colleagues in Simcoe Hall were called away from their normal responsibilities many times. They were always available and always reached consensus on the several complex issues that faced the University. The heads of the teaching divisions carried forward their respective programmes but were ready for special consultations whenever they were needed. The heads of the Constituent and Federated Colleges took helpful part in regular and special meetings throughout the session. Nor would it be invidious to single out the university security staff for maintaining postures of dignity and good humour in the face of many unusual events and even occasional acts of provocation.

The session 1967-68 was saddened by the deaths of a number of present and former members of the university community. While many of those who died during the session were long-time acquaintances, it was particularly sad to have my earliest personal link with the University broken by the deaths early in the session of Dr. Andrew Gordon of the Department of Chemistry and the School of Graduate Studies, and Miss Nora Mackenzie, first Secretary of the School of Graduate Studies. At the end of December, the Right Honourable Vincent Massey, early in his life a student and staff member, later a Governor and Chancellor and many times a benefactor of the University, died in England. Among the other retired members of the university community whose deaths occurred during the session were Professor Fulton Anderson, recently retired Head of the Department of Philosophy; Professor W. H. T. Baillie, a long-time member of the Department of Zoology; and Professor T. R. Loudon, former Head of the Department of Civil Engineering, instigator of courses in Aeronautical Engineering at this University and, by no means least among his activities, member of the Athletic Directorate, symbolizing a life-long interest in athletic events. Professor Heichelheim was just at the point of retirement but far from the completion of his scholarly activities when he died. Professor W. M. D. Long, one of the most popular of undergraduate teachers, had his career cut short by his all too early death; the loss of Professor S. E. Wolfe, a member of the Department of Mining Engineering was equally as untimely. Professor T. Kapsi, of the Department of Architecture, whose death occurred during the summer, had just begun a very promising career in Architecture. As the year was ending, Principal Mazzoleni

of the School of Music was the victim of a fatal traffic accident, leaving the School of Music without his firm hand at an important point in its development.

A number of the senior members of the university staff reached retirement age at the end of the session. Their scholarly and scientific activities, however, are likely to continue, one way or another. Professors Boeschenstein and Finch have been persuaded to continue with teaching at University College. Professor C. S. Hanes is assisting with the establishment of instruction in Biochemistry at the University of the West Indies. Professors C. C. Barnes, H. A. Courtice, J. A. Dauphinée, N. J. Endicott and W. J. Ross possess intellectual and physical resources that will not lie idle. The individual and collective service of this distinguished group of scholars and scientists adds up to an important segment of the University's reputation as a teaching and research centre. They have earned retirement and a debt of gratitude from those who have been exposed to their teaching and from those privileged to be their associates and colleagues over many years.

I would like to conclude these references with acknowledgment of the many contributions made to the working of the University by Dr. Woodside, who set an example an increasing number of senior university administrative officers would like to have open to them: that of returning to the classroom. Moffatt Woodside has devoted his adult life to this University in one capacity or another - student, lecturer, professor, Dean of Arts, Acting President, Principal of University College, and latterly, Vice-President (Academic) and Provost. As a distant admirer for fifteen years and close colleague for the last six, I record for many this word of gratitude for his readiness to share unrivalled knowledge, experience and wisdom with anyone having responsibility for maintaining the health of the University of Toronto.

JOHN H. SWORD

Appendix

HONOURS

- Dr. J. W. ABRAMS was awarded the Centennial Medal; he has been appointed by the National Research Council as Chairman of the National Committee for the International Union for the History and Philosophy of Science.
- Professor D. G. ANDREWS was elected Ontario Chairman of the Institution of Mechanical Engineers.
- Professor K. A. ARMSON was elected President of the Ontario Professional Foresters' Association.
- Dr. C. L. ASH was elected First Vice-President of the American Radium Society.
- Dr. J. D. ATCHESON was made an Honorary Life Member of the Child Care Workers' Association; he was awarded the Centennial Medal.
- Mr. J. L. BAILEY was awarded the Centennial Medal.
- Professor K. L. BALL was elected President of the Canadian Library Association for 1968-69; she was awarded the Centennial Medal.
- Dr. H. O. BARBER was elected a member of the Barany Society of Sweden.
- Dr. J. C. BARLOW was voted to an elective membership in the American Ornithologists' Union, an honour restricted to 200 of the 3,200 members.
- Dr. H. J. M. BARNETT was a Centennial Visiting Professor, Montreal Neurological Institute and McGill University; he was appointed an Honorary Member of the Academy of Neurology, Puerto Rico.
- Dr. BERTHA BASSAM was awarded the Centennial Medal.
- Dr. P. K. BASU was selected as one of the patrons of the Editorial Board of the *Indian Journal of Ocular Pathology*.
- The Reverend G. G. BAUM received the Edith Stein Award for his contributions to better Catholic-Jewish relations.
- Professor F. E. BEAMISH was the first recipient of the Fisher Scientific Lecture award.
- The Reverend Dr. F. W. BEARE was elected Vice-President of the Society of Biblical Literature and Exegesis at the annual meeting in New York.
- Dr. G. H. BEATON was elected to the American Board of Nutrition; he received the Borden Award.
- Professor D. E. BERLYNE was elected a Fellow of Division 10 (Psychology and the Arts) of the American Psychological Association.
- Dr. E. G. BERTRAM was joint recipient with Dr. Murray Barr of the University of Western Ontario of the Maurice Goldblatt gold medal awarded by the 3rd International Congress of Cytologists.
- Dr. C. H. BEST was made a Companion of the Order of Canada and was awarded the Centennial Medal; he was appointed Honorary President of la Asociación para la Defensa del Diabético, Buenos Aires, and was elected Life Member of the Pan American Medical Association.
- Professor W. G. BIGELOW received the degree of Doctor of Laws (*honoris causa*) from Brandon University; he was elected an Honorary Fellow of the Royal College of Surgeons, London; he was also elected President of the Society for Vascular Surgery and first President of the Canadian Federation for Thoracic and Cardiovascular Surgeons; he was appointed the Moynihan Lecturer.
- Professor P. P. BRINGER received the Sons of Martha Medal from the Association of Professional Engineers of Ontario.
- Dr. C. T. BISSELL was awarded the degree of Doctor of Laws (*honoris causa*) at the Commemorative Centennial Convocation of Prince of Wales College; he was also awarded the degree of Doctor of Laws (*honoris causa*) by the University of Windsor; he was elected Foreign Honorary Member of the American Academy of Arts and Science.
- Mr. R. H. BLACKBURN was awarded the Centennial Medal.

- Professor V. W. BLADEN received the degree of Doctor of Laws (*honoris causa*) from McGill University; he was awarded the Centennial Medal.
- Mr. H. BLUMENFELD received the degree of Docteur en Architecture et Urbanisme (*honoris causa*) from l'Université de Montréal.
- Dr. W. P. BOBECHKO was awarded the George Armstrong Peters Prize.
- Professor HERMAN BOESCHENSTEIN received the degree of Doctor of Laws (*honoris causa*) from Queen's University.
- Professor D. R. BOHNEN was elected President of the Academy of Medicine of Toronto.
- Professor Emeritus ALEXANDER BRADY received the degree of Doctor of Letters (*honoris causa*) from Trent University.
- Professor A. W. BREWER was elected President of the International Ozone Commission of the International Association of Meteorology and Atmospheric Physics.
- Professor A. F. BROWN was elected first President of the Canadian Educational Researchers' Association.
- Dr. W. R. BRUCE received the Medal for Medicine for an essay entitled "Normal and Malignant Stem Cells and Chemotherapy".
- Professor I. BURTON was appointed to the National Academy of Sciences/National Research Council Advisory Committee to the United States Geological Survey on Space Programs for Earth Observations.
- Professor J. M. S. CARELESS was elected President of the Canadian Historical Association.
- Dr. H. M. CARPENTER was appointed Honorary Adviser in Nursing to the Canadian Red Cross Society.
- Dr. B. CINADER was elected a Fellow of the Royal Institute of Chemistry.
- Professor S. D. CLARK was elected Honorary President of the Canadian Sociology and Anthropology Association.
- Dr. W. T. W. CLARKE was appointed Chairman of the National Diet Counselling Service Committee, Canadian Diabetic Association, and Chairman of the Drug Quality and Therapeutic Committee, Province of Ontario.
- Professor CÉCILE CLOUTIER-WOJCIECHOWSKA was awarded a prize by the Centennial Commission for her collection of poems *Cannelles et Craïes*.
- Dr. S. L. COHEN was the winner of the annual award of the Society of Obstetricians and Gynaecologists of Canada.
- Sister CORINNE was elected Superior General of the Community of Sisters of St. Joseph.
- Professor H. S. M. COXETER was awarded the Centennial Medal.
- Professor G. B. CRAIG will spend the year 1968-69 as an exchange scientist at the Baikov Institute in Moscow; this appointment is sponsored by the National Research Council and the Soviet Academy of Science.
- Dr. J. S. CRAWFORD is President of the Canadian Ophthalmological Society and Chairman of the Canadian Ophthalmic Council.
- Professor MARION G. CURRIE was elected the seventh woman Fellow of the Illuminating Engineering Society.
- Dr. J. M. M. DARTE was awarded the Centennial Medal.
- Professor J. A. DAUPHINÉE was awarded the Centennial Medal.
- Professor N. A. DELARUE was awarded the Centennial Medal; he was appointed Governor of the American College of Chest Physicians.
- Dr. J. G. DEWAN was awarded the Centennial Medal.
- Professor A. J. DIAMOND won the Design Award of the Canadian Furniture Show for the Diamond Chair, which is being exhibited by the government at the Triennale in Milan.
- Dr. J. W. DIGBY was appointed Director of Professional Education, Canadian Arthritis and Rheumatism Society.
- Dr. GOSTA DOHLMAN was awarded the Barany Medal by the Barany Society of Sweden.
- Mr. PETER DORN received an Award of Merit in the 1967 Most Beautiful Books from all the World competition at Leipzig.
- Professor STILLMAN DRAKE was awarded the degree of Doctor of Laws (*honoris causa*) by the University of California, Berkeley.
- Professor W. R. DRUCKER was appointed to the Policy Study Group of the Medical Research Council, and to the Committee on Graduate Education, American College of Surgeons; he was guest of honour of la Société de Chirurgie de Québec; he delivered the Ernest Janes Lecture to the Hamilton Academy of Medicine; he was appointed to the Board of Managers, American Association for Surgery of Trauma, and Vice-Chairman, Surgical Forum Committee, American College of Surgeons.
- Mrs. BLANCHE DUNCANSON was elected President of the College of Nurses of Ontario.
- Dean H. C. EASTMAN was reappointed to the Council of the International Economic Association to represent the Canadian Economic Association.
- Dean R. G. ELLIS was awarded the Centennial Medal.
- Professor B. ETKIN was awarded the Centennial Medal.
- Professor E. L. FACKENHEIM was appointed a member of the Remembrance Award International Committee, World Federation of the Bergen-Belsen Associations.
- Mr. ALBERT FIELD was awarded the Centennial Medal.
- Professor R. D. C. FINCH received the Lorne Pierce Gold Medal and Award for 1968 bestowed by the Royal Society of Canada.
- Dr. M. A. FISCHER was elected President of the Ontario Group Psychotherapy Association.

- Mr. ALLAN FLEMING was awarded a Gold Medal in the Graphica '68 competition sponsored by the Art Directors' Club of Toronto for *Canada: A Year of the Land*.
- Professor S. N. FLENGAS was awarded the Centennial Medal.
- Dr. D. M. FORMAN was appointed Chairman of the Advisory Committee of Professional Training for the Prevention of Blindness of the E. A. Baker Foundation.
- Professor F. E. J. FRY was awarded the Centennial Medal.
- Professor H. N. FRYE received the degree of Doctor of Laws (*honoris causa*) from the University of Saskatchewan and also from Franklin and Marshall College, Lancaster, Pennsylvania; he was made a trustee of the English Institute in New York; he was awarded the Canada Council Medal in recognition of outstanding cultural achievement, and he received a Centennial Medal.
- Mr. GORDON GARDEN was awarded the Centennial Medal.
- Professor R. S. GILL received a 1967 Merit Award from the Alumni Federation of the Carnegie Institute of Technology for outstanding achievements in drama.
- Professor ETIENNE GILSON received an honorary degree from l'Université de Liège.
- Professor I. I. GLASS was appointed a member of the National Aeronautics and Space Administration Basic Research Subcommittee on Fluid Mechanics, Office of Advanced Research and Technology.
- Dr. C. M. GODFREY was awarded the Centennial Medal.
- Professor W. D. GODFREY won the President's Medal of the Canadian Authors' Association in two categories, the short story and the general article.
- Professor R. A. GORDON was awarded the Centennial Medal.
- Professor C. C. GOTLIEB became a Fellow of the Royal Society of Canada; he received the degree of Doctor of Mathematics (*honoris causa*), one of the three awarded at a special Convocation to mark the official opening of the University of Waterloo's new Mathematics and Computer building.
- Professor T. A. GOUDGE was awarded the Centennial Medal.
- Professor V. E. GRAHAM was awarded the degree of Doctor of Letters (*honoris causa*) by Oxford University.
- Dr. K. G. GRAY was appointed Honorary Counsel, Canadian Psychiatric Association.
- Mr. C. GREENLAND was elected a Fellow of the Royal Society of Medicine, London.
- Professor G. M. A. GRUBE received the Award of Merit of the American Philological Association for his book, *The Greek and Roman Critics*; this award is made annually for an outstanding contribution to classical scholarship.
- Professor J. E. GUILLET was chairman of the 1968 Gordon Research Conference on the Chemistry and Physics of Coatings and Films, Crystal Mountain, Wash.
- Dr. GUNNIS EGE received the Congress award of the Canadian Association of Radiologists for the best paper presented by a Resident.
- Mr. ROY GURNEY was awarded a trophy as the Outstanding International Craftsman of 1967 by the International Association of Printing House Craftsmen.
- Dr. J. D. HAMILTON was awarded the degree of Doctor of Clinical Sciences (*honoris causa*) by the University of Lagos.
- Professor NIKOLAUS HÄRING was named by the Bavarian Academy of Sciences to serve on its Commission for the Editing of Unpublished Texts in Mediaeval Thought.
- Professor D. G. HARTLE received one of the inaugural Killam Awards; he has been appointed to the Executive Committee, National Bureau of Economic Research, New York.
- Dr. J. E. F. HASTINGS, with Professor Mott, received support from WHO and from a National Health grant for a study of different patterns for the provision of personal health services.
- Professor J. F. HEARD was awarded the Centennial Medal.
- Professor M. R. HECHT was named first Honorary Member of the Ontario Society for Training and Development.
- Professor R. O. HEIMBECKER received the 1967 award of the Gold Medal of the Royal College of Physicians and Surgeons of Canada for his clinical and laboratory investigations on myocardial infarctectomy.
- Professor K. F. HELLEINER was awarded the Centennial Medal.
- Dr. C. E. HENDRY was appointed chairman of the Executive Committee of the Canadian Welfare Council; he was honorary adviser on Emergency and Welfare Affairs of the Canadian Red Cross Society; he was appointed general chairman of a Canadian Conference on Poverty being planned by an ecumenical committee on the Church and Industrial Society.
- Professor C. O. HINES was awarded the Centennial Medal.
- Principal J. E. HODGETTS was elected Chairman of the Academic Advisory Panel of the Canada Council.
- Dr. J. HOGARTH was elected President of the Federation of Medical Women of Canada.
- Dr. HELEN S. HOGG was awarded the Centennial Medal.
- Dr. R. B. HOLMES was elected Treasurer and Director of the Radiological Society of North America.
- Dean THOMAS HOWARTH was appointed to the National Capital Commission and was appointed Chairman of its Advisory Committee on Design; he was also appointed a member of the three-man Canadian delegation to the International Union of Architects in Prague.
- Professor M. W. HUGGINS, with E. N. Alpin and J. H. L. Palmer, received the Gzowski Award

- of the Engineering Institute of Canada for the best paper in the field of Civil Engineering; he was awarded the Centennial Medal.
- Dr. W. S. HUNTER was chairman of the Academy of Medicine, Section of Ophthalmology, and was awarded the "Needle" for 1966-67.
- Dr. H. HUSDAN has been elected a Fellow of the Royal Institute of Chemistry, Great Britain.
- Professor P. E. IRELAND was awarded the Centennial Medal.
- Dr. R. W. B. JACKSON was awarded the degree of Doctor of Laws (*honoris causa*) by the University of Alberta.
- Professor S. H. JACKSON was awarded the Centennial Medal.
- Professor W. JANISCHEWSKYJ was appointed Canadian Representative to the Chapters Committee of the Institute of Electrical and Electronics Engineers.
- Dr. MARSH JEANNERET was awarded the Centennial Medal.
- Professor H. E. JOHNS was awarded the Centennial Medal.
- Dr. A. T. JOUSSE was awarded the Centennial Medal.
- Dr. J. D. KEITH delivered the first John D. Keith Lecture to the Canadian Cardiovascular Society; he was elected a Fellow of the Royal College of Physicians and Surgeons of Canada.
- Dr. D. T. C. KENNEY has been awarded the Walter L. Huber Civil Engineering Research Prize by the American Society of Civil Engineers.
- Dr. J. R. KIDD was awarded the degree of Doctor of Laws (*honoris causa*) by Sir George Williams University.
- Dr. H. C. KING was appointed council member and editor of the *Journal* of the newly founded Planetarium Association of Canada.
- Professor R. B. LAND received the first annual award of the Ontario Library Trustees' Association.
- Dr. G. B. LANGFORD was awarded the Ontario Naturalists' Conservation Trophy for 1968.
- Principal D. V. LEPAN has been elected a Fellow of the Royal Society of Canada; he has been re-appointed a member of the Canada Council for a three-year term.
- Professor K. L. LEVY was elected President of the Instituto Internacional de Literatura Iberoamericana; he was also named by the Ontario Chapter of the American Association of Teachers of Spanish and Portuguese for outstanding contributions to the organization.
- Dr. D. H. LEY was a Visiting Haematologist in Sweden.
- Professor JOHN LEYERLE has been made a member of the Steering Committee of the Association of Centers of Medieval and Renaissance Studies of North America.
- Professor A. E. LITHERLAND was elected a Fellow of the Royal Society of Canada.
- Professor K. E. LIVINGSTON was appointed Chairman of the Neurosciences Research Seminar, Shiraz, Iran.
- Dean R. St. J. MACDONALD was appointed chairman of the Advisory Committee on the Canada Pension Plan.
- Dr. J. MACHIN was invited to take part in an expedition up the Amazon on the research ship *Alpha Helix*, sponsored by the University of California and the National Science Foundation of the United States.
- Dr. I. M. MACKAY was awarded the Centennial Medal.
- Professor C. B. MACPHERSON was awarded the Centennial Medal.
- Dr. H. M. MACRAE was awarded the Centennial Medal.
- Dr. E. MASTROMATTEO was awarded the Centennial Medal.
- Professor B. K. MATILAL was elected a member of the Asiatic Society, Calcutta, and a founding member of the American Society for Asian and Comparative Philosophy.
- Dr. K. McASKILE was elected President of the Canadian Otolaryngological Society.
- Dr. J. K. McCONICA was named a senior adviser at the Centre for Reformation and Renaissance Studies.
- Professor H. M. McLUHAN received one of the three Molson Prizes awarded by the Canada Council to distinguished Canadians for outstanding achievement in the arts, humanities and social sciences.
- Dr. B. H. McNEEL was awarded the Centennial Medal.
- Professor A. S. MICHELL was awarded the Centennial Medal.
- Dr. A. D. MISENER was appointed to the Executive of the National Committee for the International Hydrologic Decade; he was chosen as President of the International Association for Great Lakes Research.
- Professor J. A. MOLINARO was elected President of the Ontario Chapter of the American Association of Teachers of Italian.
- Dr. P. J. MOLONEY was the recipient of one of the nine awards to medical scientists from Canada, the United States, Britain and Belgium from the Gairdner Foundation, in recognition of his achievement in developing Sulphated Insulin for insulin-resistant diabetics.
- Dr. F. D. MOTT received the Ernest P. Boas Memorial Fund award for the Advancement of Social Medicine, an award maintained under the auspices of the Montefiori Hospital, New York; with Professor Hastings he received support from WHO and from a National Health grant for a study of different patterns for the provision of personal health services; he was elected President of the Medical Administrators' Conference.
- Dr. H. Z. MOVAT was appointed to the National Board of Medical Examiners of the United States.

- Professor J. E. MULLINS was awarded the Centennial Medal.
Dr. D. W. G. MURRAY was awarded the Order of Canada.
Miss MARY I. MUSTARD was awarded the Centennial Medal.
Professor C. R. MYERS was elected President of the American Association of State Psychology Boards.
The Reverend Canon M. T. NEWBY received the degree of Doctor of Divinity (*honoris causa*) from Wycliffe College.
Professor RUTH J. NORTHCOTT was awarded the Centennial Medal.
Professor J. R. O'DONNELL was awarded a fellowship in the Princeton Institute for Advanced Study.
Dr. M. A. OGYZLO was appointed Chairman of the Review Panel, The Gairdner Foundation.
Dr. A. M. PARK received the Certificate of Merit from the Multiple Sclerosis Society of Canada.
Professor J. H. PARKER was elected President of the Canadian Association of Hispanists and Vice-President of the Instituto Internacional de Literatura Iberoamericana.
Dr. A. PARKIN was elected Chairman of the Canadian Institute of Psychoanalysis (Ontario).
Dr. G. N. PATTERSON was elected a member of the Executive Committee of the Aerospace Division of the American Society of Engineering Education.
Dr. W. M. PAUL was elected a Fellow of the Royal College of Obstetricians and Gynaecologists of London.
Dr. R. L. PERKIN was elected Chairman of the National Committee on Undergraduate Education, College of Family Physicians of Canada.
Professor L. M. PIDGEON has been elected a Fellow of the Metallurgical Society of the American Institute of Mining, Metallurgical and Petroleum Engineers.
Dr. D. H. PIMLOTT was awarded the Centennial Medal.
Dr. R. POS was invited to become the founding Chairman of the Toronto Chapter of the American Society of Cybernetics.
Professor M. R. POWICKE has been elected to the Council of the Mediaeval Academy of America.
Dr. K. F. POWNALL was elected a Fellow of the Canadian Section, International College of Dentists.
Professor R. C. PRATT received one of the inaugural Killam Awards.
Dr. J. S. PRICHARD was elected President of the Eastern Association of Electroencephalographers and Counsellor of the American Epilepsy Society; he was awarded the Centennial Medal.
Dr. C. E. PURDY was made a Fellow of the Canadian Section of the International College of Dentists.
Dr. B. QUARRINGTON was elected President of the Ontario Psychological Association.
Professor W. H. RAPSON was awarded the Centennial Medal.
Dr. A. J. RHODES was awarded the Centennial Medal.
Professor H. R. RICE was appointed Official Correspondent for Eastern Canada by the Council of the Institution of Mining and Metallurgy, London.
Professor GODFREY RIDOUT received the degree of Doctor of Laws (*honoris causa*) from Queen's University.
Professor LAURE RIÈSE was appointed the only corresponding member outside of France of the Academy of the Art of Living.
Dr. A. C. RITCHIE was elected President of the Canadian Association of Pathologists.
Dr. C. A. ROBERTS was awarded the Centennial Medal.
Professor C. J. ROBSON was elected President of the Canadian Urological Association.
Dr. G. K. RODGERS was appointed a member of the Natural Sciences Subcommittee of the National Advisory Committee on Water Resources Research.
Professor R. C. ROEDER was elected to the International Astronomical Union.
Professor C. D. ROUILLARD received from the Ambassador of France to Canada the Croix de Chevalier de la Légion d'Honneur, conferred by the French Government.
Professor R. B. SALTER was awarded the Centennial Medal; he was appointed to the Council of the Medical Research Council of Canada, and elected to the Council of the Royal College of Physicians and Surgeons of Canada.
Professor M. SANUILLET has been named a Chevalier in the French National Order of the Palmes Académiques; he was re-elected President of the International Association for the Study of Dada and Surrealism.
Professor D. SAVAN was re-elected Vice-President of the C. S. Pierce Society.
Professor EZRA SCHABAS represented the Canadian Music Council at a conference on music education in Asiatic countries in Teheran, an event sponsored by UNESCO.
Professor R. J. SCHOECK was elected to membership in the Canon Law Society of America; he was the Thomas More Lecturer at Yale University.
Mr. PETER SCOLLICK was awarded the Centennial Medal.
Dr. W. B. SCOTT was awarded the Centennial Medal.
Mr. B.-Z. SHEK won an Ontario Teachers' Federation award for the best educational film for elementary schools in 1967, for *The Diary of Elizabeth Simcoe* which he wrote and edited.
Professor L. SIMINOVICH was awarded the Centennial Medal.
Dean ERNEST SIRLUCK received the degree of Doctor of Laws (*honoris causa*) from Queen's University.
Professor H. G. SKILLING received one of the inaugural Killam Awards; he was elected a

- member of the National Council of the American Association for the Advancement of Slavic Studies.
- Professor G. R. SLEMON received the degree of Doctor of Science from the University of London.
- Professor J. W. SMITH was appointed a Fellow of the Chemical Institute of Canada.
- Professor J. E. SMYTH has been appointed Vice-President of the American Accounting Association.
- Dr. R. M. SOBERMAN was named by the National Research Council to represent Canada at the first meeting of the Expert Group on Urban Simulation Models by the Organization for Economic Co-operative Development in London.
- Professor F. E. SPARSHOTT was awarded the President's Medal of the University of Western Ontario for his article "Philosophy and the Creative Process."
- Dr. G. W. SPRAGGE was one of the two recipients of the Cruickshank Medal, awarded by the Ontario Historical Society for outstanding service to the cause of history in Ontario.
- Professor C. P. STACEY was elected President of Section II, Royal Society of Canada.
- Professor B. P. STOICHEFF was invited to inaugurate an annual lecture series by the R.C.A. Victor Research Laboratories in Montreal; he was awarded the Centennial Medal.
- Dr. A. B. STOKES was awarded the Centennial Medal.
- Dr. H. I. G. STRAWBRIDGE was appointed President and Chairman of the Board of Governors of the Toronto Institute of Medical Technology.
- Dr. W. E. SWINTON was elected a member of the New York Academy of Sciences; he was elected 1968 Billings Lecturer of the Unitarian Universalist Association, Boston.
- Dr. CHARLES TATOR was awarded the eighteenth Mead Johnson Award for Graduate Surgery by the Board of Regents of the American College of Surgeons.
- Professor C. TILLY was elected to the American Historical Association's Subcommittee on Western European Quantitative Data; elected co-chairman of the History Panel, and member of the Central Committee of the Behavioral and Social Sciences Survey of the National Academy of Sciences/Social Science Research Council of the United States.
- Dr. G. A. TRUSLER was awarded the Centennial Medal.
- Dr. J. A. P. TURNER was elected Chairman of the Section on Diseases of the Chest, American Academy of Pediatrics.
- Dr. R. L. TWIBLE was elected a Fellow of the Canadian Section, International College of Dentists.
- Professor J. VAN KRANENDONK was awarded the Centennial Medal; he was elected Chairman of the Theoretical Physics Division of the Canadian Association of Physicists.
- Professor G. S. VICKERS was appointed a member of the Humanities Research Council of Canada and appointed by the Canadian Government to the Board of Trustees of National Museums of Canada.
- Dr. P. G. WALFISH was elected President of the Clinical Research Society of Toronto.
- Dr. JEAN F. WEBB was awarded the Centennial Medal.
- Professor JOHN WEINZWEIG was honoured by the University of Saskatchewan with an exhibition-concert of his music as a Centennial feature.
- Professor H. L. WELSH was awarded the Centennial Medal.
- Professor J. M. O. WHEATLEY was elected a Voting Member of the American Society for Psychical Research.
- Professor B. WILKINSON received the Chauveau Medal from the Royal Society.
- Professor H. L. WILLIAMS was elected first Chairman of the new Division of Macromolecular Science of the Chemical Institute of Canada.
- Professor R. J. WILLIAMS was elected a Fellow of the Royal Society of Canada; he was awarded the Centennial Medal.
- Professor JOHN WILLIS received the degree of Doctor of Laws (*honoris causa*) from Queen's University.
- Principal J. T. WILSON was elected a Fellow of the Royal Society of London, a Foreign Associate of the National Academy of Sciences of the United States, and an Honorary Member of the Canadian Society of Exploration Geophysicists; he received the degree of Doctor of Science (*honoris causa*) from Acadia University, the first W. H. Bucher medal from the American Geophysical Union, the Bancroft award from the Royal Society of Canada, and the Logan Medal from the Geological Association of Canada, and was awarded the Centennial Medal.
- Professor P. WODZIANSKI was awarded the Gold Cross of Merit by the free Polish Government in Exile for his scientific work and educational activities with Polish professional engineers in England and Canada.
- Dr. C. R. WOLF was elected Chairman of the Joint Committee of the Ontario Thoracic Society and the Ontario Tuberculosis Association.
- Dr. N. WRONG was elected Vice-President of the American Dermatologic Association.

DEATHS

The following members of our staff have died during the year:

- F. H. ANDERSON – Professor of Philosophy (retired), January 11, 1968
 W. H. T. BAILLIE – Professor of Mammalian Anatomy (retired), November 19, 1967
 A. R. GORDON – Professor of Chemistry and Dean of Graduate Studies (retired), July 29, 1967
 F. HEICHELHEIM – Professor of Classics, April 22, 1968
 T. KAPSI – Assistant Professor of Architecture, August 27, 1967
 W. M. D. LONG – Professor of Philosophy, May 12, 1968
 T. R. LOUDON – Professor of Aeronautical Engineering and Chemical Engineering (retired), January 6, 1968
 The Rt. Hon. VINCENT MASSEY – Chancellor of the University (retired) and member of the Board of Governors, December 30, 1967
 E. MAZZOLENI – Principal of the School of Music, June 1, 1968
 S. E. WOLFE – Professor of Mining Engineering, October 24, 1967

RETIREMENTS

- C. C. BARNES – Professor of Physics
 H. BOESCHENSTEIN – Professor of German
 H. A. COURTICE – Associate Professor of Electrical Engineering
 J. A. DAUPHINÉE – Professor of Pathological Chemistry
 N. J. ENDICOTT – Professor of English
 R. D. C. FINCH – Professor of French
 C. S. HANES – Professor of Biochemistry
 W. J. ROSS – Professor of Dentistry

RESIGNATIONS

- R. G. BARRADAS – Associate Professor of Chemistry
 W. E. BECKEL – Dean of Scarborough College and Professor of Zoology
 J. BIRCH – Chairman of the Department and Professor of Geography
 V. G. BUTLER – Associate Professor of Psychiatry
 D. CAPPON – Assistant Professor of Psychiatry
 D. S. CARLISLE – Associate Professor of Political Economy
 W. D. CAVANAGH – Assistant Professor of Dentistry
 D. J. CLOUGH – Associate Professor of Industrial Engineering
 W. K. COLE – Associate Professor of Music
 G. R. COOK – Professor of History
 J. K. DAVIDSON – Associate Professor of Physiology
 L. M. DORFMAN – Professor of Chemistry
 W. H. DRAY – Professor of Philosophy
 L. DWORIN – Assistant Professor of Physics
 R. F. FLAGG – Assistant Professor of Aerospace Studies
 M. FOWLER – Associate Professor of Physics
 H. B. FREDMAN – Assistant Professor of Psychiatry
 R. M. GRAINGER – Professor of Dentistry
 K. GUTHKE – Professor of German
 R. G. HARRISON – Instructor, College of Education
 Mrs. M. JENKINS – Assistant Professor of Slavic Languages & Literature
 A. R. JOHNSTON – Professor of Music
 K. W. JOY – Associate Professor of Botany
 Y. Y. JUNG – Assistant Professor of Architecture
 B. H. KARNOPP – Assistant Professor of Mechanical Engineering
 H. KREVER – Associate Professor of Law
 Miss M. KUTSCHKE – Assistant Professor of Nursing
 G. N. LAIDLAW – Professor of French

E. L. LANSDOWN – Associate in Radiology
 M. LISTGARTEN – Associate Professor of Dentistry
 D. J. MCCALLION – Professor of Zoology
 R. NINOMIYA – Assistant Professor of Physiology
 Miss M. L. NORTHWAY – Associate Professor of Child Study
 J. A. PAGE – Associate Professor of Chemistry
 P. A. PEACH – Associate Professor of Geology
 W. D. PIERCEY – Associate Professor of Health Administration
 B. QUARRINGTON – Associate Professor of Psychology and Psychiatry
 M. E. RASHOTTE – Assistant Professor of Psychology
 H. L. RIDGE – Instructor, College of Education
 W. D. ROSS – Professor of Psychiatry
 J. M. SALTER – Associate Professor, Banting & Best Department of Medical Research
 J. A. SARJEANT – Associate Professor of Business
 Mrs. M. SEELEY – Assistant Professor of Social Work
 Miss H. SHIH – Associate Professor of East Asian Studies
 J. H. SOPER – Professor & Curator of Botany
 J. K. SPICER – Associate Professor of Political Economy
 R. A. SYED – Assistant Professor of Pathological Chemistry
 Y. TUAN – Associate Professor of Geography
 E. R. YENDT – Associate Professor of Medicine

LEAVES OF ABSENCE

J. H. ACLAND – Associate Professor of Architecture
 W. D. BAINES – Professor of Mechanical Engineering
 F. W. BEALES – Associate Professor of Geology
 J. M. BEATTIE – Assistant Professor of History
 P. M. BECK – Associate in Dentistry
 G. E. BENTLEY – Associate Professor of English
 B. BERNHOLTZ – Professor of Industrial Engineering
 J. BIRCH – Professor and Chairman of Geography
 H. BOESCHENSTEIN – Professor of German
 W. A. BOURKE – Associate Professor of Social Work
 H. E. BOWMAN – Professor of Slavic Languages and Literature
 M. BROWNSTONE – Professor of Political Economy
 D. R. CARROLL – Associate Professor of English
 S. B. CHANDLER – Professor of Italian & Hispanic Studies
 S. H. E. CLARKSON – Assistant Professor in Political Economy
 Mrs. C. CLOUTIER-WOJCIECHOWSKA – Associate Professor of French
 J. H. DALES – Professor of Political Economy
 Mrs. N. Z. DAVIS – Assistant Professor of History
 J. A. DAIVSON – Associate in Dentistry
 Miss M. A. DOOLAN – Assistant Professor of Social Work
 R. B. DREWITT – Assistant Professor of Anthropology
 D. P. DRYER – Assistant Professor of Philosophy & Ethics
 P. R. DUCRETET – Assistant Professor of French
 H. J. DWORKIN – Associate Professor of Medicine
 J. EAYRS – Professor of Political Economy
 J. LL. J. EDWARDS – Director, Centre of Criminology
 D. ENGEL – Associate in Dentistry
 E. L. FACKENHEIM – Professor of Philosophy
 R. M. FISCHLER – Assistant Professor of Mathematics
 K. C. FISHER – Professor of Zoology
 Mrs. N. FLORUK – Assistant Professor of Slavic Languages & Literature
 Miss D. FORWARD – Professor of Botany
 W. G. FRIEND – Professor of Zoology
 J. J. GERSON – Assistant Professor of History
 P. J. GIFFEN – Professor of Sociology
 W. A. GOFFART – Associate Professor of History
 R. A. GREENE – Associate Professor of English
 P. GRENDLER – Assistant Professor of History
 J. GULSOY – Assistant Professor of Italian & Hispanic Studies
 C. M. T. HANLY – Associate Professor of Philosophy & Ethics
 G. K. HELLEINER – Associate Professor of Political Economy
 N. HORI – Associate in Dentistry

A. JARVIS - Associate in Dentistry
 D. J. JOHNSTONE - Associate in Dentistry
 Miss P. E. JONES - Assistant Professor of Nursing
 Y. Y. JUNG - Assistant Professor of Architecture
 B. W. LAPPIN - Associate Professor of Social Work
 N. LEVINE - Associate in Dentistry
 E. LEWIS - Associate in Dentistry
 D. V. LOVE - Professor of Forestry
 C. B. MACPHERSON - Professor of Political Economy
 A. MANIS - Associate in Dentistry
 P. V. MARINELLI - Assistant Professor of English
 M. G. MCKENNA - Associate in Dentistry
 H. M. McLUHAN - Director of Centre for Culture & Technology
 R. H. McNEAL - Associate Professor of History
 N. MELTZ - Associate Professor of Political Economy
 P. H. MELVILLE - Assistant Professor of Psychiatry
 R. W. MISSEN - Associate Professor of Chemical Engineering
 W. W. MOORHOUSE - Professor of Geology
 R. K. MURRAY - Assistant Professor of Biochemistry
 G. B. PAYZANT - Associate Professor of Philosophy
 J. M. RIST - Associate Professor of Classics
 P. H. RUSSELL - Associate Professor of Political Economy
 R. M. SAUNDERS - Professor of History
 R. M. SAVORY - Professor & Associate Chairman of Islamic Studies
 H. SCHACHTER - Associate Professor of Biochemistry
 P. SCHERK - Professor of Mathematics
 Miss H. SHIH - Associate Professor of East Asian Studies
 Miss M. SINDEN - Professor of German
 L. B. SMITH - Assistant Professor of Political Economy
 Mrs. M. C. SMITH - Assistant Professor of Psychology
 G. L. STAGG - Professor of Italian & Hispanic Studies
 A. TAYYEB - Associate Professor of Geography and Islamic Studies
 D. F. S. THOMSON - Associate Professor of Classics
 M. UEDA - Associate Professor of East Asian Studies
 J. R. VANSTONE - Associate Professor of Mathematics
 K. N. WALKER - Assistant Professor of Sociology
 Miss E. WALLACE - Professor of Political Economy
 A. C. WARD - Assistant Professor of East Asian Studies
 A. M. WATSON - Associate Professor of Political Economy
 D. L. WATSON - Associate Professor of Psychology
 G. T. WILL - Assistant Professor of Civil Engineering
 G. R. WILLIAMS - Professor of Biochemistry
 Miss M. J. WILSON - Associate Professor of Nursing
 J. W. L. WINDER - Associate Professor of Political Economy
 D. YORK - Associate Professor of Physics

PROMOTIONS

FACULTY OF ARTS AND SCIENCE

Professors and Chairmen: D. P. KERR, Geography; A. P. THORNTON, History
Associate Professor and Associate Chairman: W. T. SHARP, Mathematics
Assistant Professor and Executive Assistant to Chairman of the Department: R. J. O'BRIEN, Chemistry
Professors: A. G. HARRISON, Chemistry; G. R. COOK, R. H. McNEAL, History; J. A. MOLINARO, Italian and Hispanic Studies; B. BRAINERD, A. B. LEHMAN, Mathematics; D. P. GAUTHIER, Philosophy; J. W. MOFATT, Physics; R. W. JUDY, Political Economy; L. ZAKUTA, Sociology; F. URQUHART, Zoology
Associate Professors: Mrs. M. HEIMBERGER, J. H. SPARLING, Botany; J. B. JONES, Chemistry; B. K. MATILAL, East Asian Studies; L. JOHNSON, Fine Art; R. C. HARRIS, Geography; J. B. WATERHOUSE, Geology; J. M. BEATTIE, H. L. DYCK, T. O. LLOYD, T. A. SANDQUIST, History; Mrs. A. J. COX, Islamic Studies; R. J. GLICKMAN, Italian and Hispanic Studies; E. STAMM, Mathematics; C. M. T. HANLY, Philosophy; J. D. POLL, Physics; S. H. E. CLARKSON, J. T. McLEOD, G. SLASOR, Political Economy; D. BUTLER, P. J. POINTING, Zoology

Assistant Professors: Mrs. J. M. VASTOKAS, Anthropology and Fine Art; Miss C. STEVENS, East Asian Studies; J. PERCY, Astronomy; W. M. JOHNSON, Fine Art; E. B. MACDOUGALL, Geography; C. C. BERGER, History; Mrs. M. KUITUNEN, A. VICARI, Italian and Hispanic Studies; R. A. BUCHANAN, Philosophy; R. D. BROWN, R. A. FENN, F. W. PEERS, A. ROTSTEIN, Political Economy; Miss J. PRESTON, Miss V. PASKAL, Psychology; Mrs. H. FLORUK, D. G. HUNTLEY, Slavic Languages and Literature; R. A. CARLTON, Sociology; H. WELCH, Zoology

UNIVERSITY COLLEGE

Professors and Chairmen of Departments: H. N. MILNES, German; R. J. WILLIAMS, Near Eastern Studies
Professors: J. J. CARROLL, J. M. R. MARGESON, S. P. ROSENBAUM, English; D. P. GAUTHIER, Ethics; J. F. FLINN, French
Associate Professors: M. J. O'BRIEN, Classics; C. M. T. HANLY, G. B. PAYZANT, Ethics; D. R. CARROLL, English; A. G. FALCONER, French; W. PACKER, German; D. B. REDFORD, A. K. GRAYSON, R. F. G. SWEET, Near Eastern Studies
Assistant Professors: P. R. ALLEN, Miss A. C. BEGOR, H. KERPNECK, C. VISSER, J. F. WOODRUFF, English; R. A. BUCHANAN, Ethics; Miss W. J. BANCROFT, F. GERSON, P. L. MATHEWS, O. J. MILLER, W. A. OLIVER, French

NEW COLLEGE

Assistant Professors: F. GERSON, P. L. MATHEWS, O. MILLER, W. A. OLIVER

FACULTY OF APPLIED SCIENCE AND ENGINEERING

Professor and Chairman of Department: B. ETKIN, Engineering Science
Professor and Assistant Head of Department: R. W. P. ANDERSON, Industrial Engineering
Assistant Chairmen of Departments: J. W. SMITH, Chemical Engineering; S. M. UZUMERI, Civil Engineering
Professors: J. W. ABRAMS, Industrial Engineering; P. B. HUGHES, F. P. J. RIMROTT, Mechanical Engineering
Associate Professors: K. A. SELBY, J. VLCEK, Civil Engineering; K. G. BALMAIN, E. S. LEE, S. D. T. ROBERTSON, Electrical Engineering; W. J. MOROZ, Mechanical Engineering; B. RAMASWAMI, Metallurgy and Materials Science.
Assistant Professor: S. B. DEWAN, Electrical Engineering

FACULTY OF ARCHITECTURE, URBAN AND REGIONAL PLANNING AND LANDSCAPE ARCHITECTURE

Professor and Chairman of Department: J. H. ANDREWS, Architecture
Associate Professor and Chairman of Department: R. STRONG, Landscape Architecture
Associate Professor and Associate Chairman of Department: M. HOUGH, Landscape Architecture
Professor: R. J. K. BARKER
Associate Professors: A. J. DIAMOND, W. S. GOULDING, J. A. HALL, D. H. LEE, G. A. ROBB, F. A. WATTS, R. WHITELY, Architecture
Assistant Professors: S. N. BENJAMIN, C. CORNEIL, M. KATZ, K. H. STEVENS, Architecture; A. WATERHOUSE, Urban and Regional Planning

SCHOOL OF BUSINESS

Associate Professor: J. E. DOOLEY

INSTITUTE OF CHILD STUDY

Assistant Professor: Mrs. N. FOSTER

FACULTY OF DENTISTRY

Professor and Director: Miss M. JACKSON, Division of Dental Hygiene
Associate Professors: M. G. JOHNSTON, M. A. LISTGARTEN, D. N. LEWIS, J. E. SPEED

Assistant Professors: D. L. ANDERSON, J. G. DALE

Associates: J. A. BIGELOW, A. J. CLARKE, R. DELIA, R. S. GROSE, R. D. HAZELTON, MRS. J. KRUPANSZKY, E. LANGENHOLT, H. PARROTT, S. ROSEN, R. SUMNER, R. TEITLER

FACULTY OF FOOD SCIENCES

Associate Professor: T. FRANCIS

Assistant Professor: MRS. P. COLEMAN

FACULTY OF FORESTRY

Professor: E. JORGENSEN

Associate Professor: G. M. WILSON

SCHOOL OF GRADUATE STUDIES

Associate Dean Division I: V. E. GRAHAM

Associate Dean Division II: A. M. FALLIS

Assistant to Dean: M. ISRAEL

GRADUATE DEPARTMENT OF ENGLISH

Chairman: C. LEECH

GRADUATE DEPARTMENT OF FRENCH

Chairman: E. JOLIAT

SCHOOL OF HYGIENE

Professor: R. PAKULA, Microbiology

Associate Professors: J. S. BELL, Epidemiology & Biometrics; P. H. JONES, P. L. SEYFRIED, Microbiology

Assistant Professors: Mrs. A. BOZOKI, Epidemiology & Biometrics; J. A. MCNAB, R. J. C. MCQUEEN Hospital Administration; P. C. FLEMING, Microbiology; Miss H. MILNE, Nutrition

FACULTY OF LAW

Associate Professor: G. L. MORRIS

SCHOOL OF LIBRARY SCIENCE

Professor: R. B. LAND

Associate Professor: W. J. KURMEY

FACULTY OF MEDICINE

Professors: A. W. CONN, H. B. FAIRLEY, Anaesthesia; B. CINADER, C. R. FUERST, E. A. McCULLOCH, Medical Biophysics; J. C. HILL, Ophthalmology; G. A. HENRY, Oto-Laryngology; J. H. EBBS, Paediatrics; G. J. HETENYI, Physiology; R. A. MUSTARD, Surgery

Associate Professors: R. G. MCKENZIE, Miss A. M. JÉZÉQUEL, Anatomy; G. H. HAWKES, Miss M. ROSS, T. E. ROY, Bacteriology; R. A. ANWAR, D. A. TURNER, Biochemistry; J. W. HUNT, Medical Biophysics; H. J. M. BARNETT, H. J. DWORKIN, J. M. FINLAY, J. A. LITTLE, A. RAPOPORT, Medicine; R. WILSON, Obstetrics & Gynaecology; J. B. WHALEY, Oto-Laryngology; C. COLLINS-WILLIAMS, P. SWYER, Paediatrics; B. CINADER, S. H. JACKSON, A. MALKIN, C. J. PORTER, A. RAPOPORT, Pathological Chemistry; D. C. ROBERTSON, Surgery

Assistant Professors: G. D. M. BODDINGTON, H. BOYES, J. M. R. CAMPBELL, A. J. DUNN, D. C. FINLAYSON, Miss S. A. FLEMING, J. M. MACKAY, P. MARCHANT, J. M. SHAPLEY, G. F. SMITH, Anaesthesia; A. G. ERWIN, Anatomy; Mrs. M. A. PACKHAM, Biochemistry; K. W. G. BROWN, K. R. BUTLER, A. W. CHISHOLM, D. M. FINLAYSON, N. FORBATH, R. I. HECTOR, H. P. M. HIGGINS, Miss D. C. LEY, J. T. MAROTTA, E. A. McCULLOCH, A. D. MCKELVEY, J. L. RUSE, G. W. SMITH, H. A. SMYTHE, D. A. STINSON, G. W. STOCK,

Miss J. M. VALE, J. G. WATT, J. R. WHERRETT, Medicine; W. P. CALLAHAN, H. R. HAUSLER, Ophthalmology; J. GOLLON, Oto-Laryngology; C. S. ANGLIN, P. C. FLEMING, J. R. HAMILTON, J. A. LOWDEN, J. MACLEAN, P. MCCLURE, Paediatrics; S. DUBISKI, M. O'SULLIVAN, R. A. SYED, Pathological Chemistry; D. PANTALONY, G. SIMON, Pathology; A. W. CONN, J. KHANNA, Pharmacology; H. O'BEIRNE, Biomedical Electronics; G. STEINER, Physiology; E. R. MARKSON, J. W. MOHR, R. POS, Psychiatry; B. J. REILLY, Radiology; J. S. CRAWFORD, C. M. GODFREY, Miss I. M. ROBINSON, Rehabilitation Medicine; R. J. BAIRD, N. C. DELARUE, F. G. PEARSON, Surgery

Associates: N. PARK, Anaesthesia; H. BERRY, J. W. DIGBY, S. DUBISKI, H. FIELDS, W. GEISLER, G. A. GOW, W. J. McLLROY, R. POS, E. PROKIPCHUK, Medicine; W. S. HUNTER, R. K. MACDONALD, C. B. MORTIMER, Ophthalmology; M. BRAUDO, D. CROZIER, R. DISENHOUSE, Miss A. FLEMING, I. A. FREMES, G. HAMBLIN, W. HANLEY, Mrs. M. HAVELKOVA, D. HOARE, R. JOHNSON, D. MCGREAL, E. G. MURPHY, Mrs. A. REBHAN, R. L. SMITH, D. STEWART, J. L. WEBER, Paediatrics; J. OLIN, B. A. TOBE, Pathological Chemistry; B. ALLAN, C. K. MCKNIGHT, L. P. SOLURSH, Psychiatry; R. F. COLAPINTO, E. L. LANSDOWN, R. M. PARRISH, Radiology

BANTING AND BEST DEPARTMENT OF MEDICAL RESEARCH

Associate Professor: A. KUKSIS
Assistant Professor: B. ROSENFELD

FACULTY OF MUSIC

Professors: L. FENYVES, A. R. JOHNSTON, E. SCHABAS
Associate Professor: T. KENINS

SCHOOL OF NURSING

Associate Professors: Mrs. D. BURWELL, Miss N. PARKER

FACULTY OF PHARMACY

Associate Professors: S. KANDEL, D. J. STEWART

SCHOOL OF PHYSICAL AND HEALTH EDUCATION

Director: J. H. EBBS
Assistant Professors: Miss A. HEWETT, Miss M. VAN DER MERWE

SCHOOL OF SOCIAL WORK

Associate Professor: W. A. BOURKE

DEPARTMENT OF COMPUTER SCIENCE

Chairman: T. C. HULL
Professors: R. W. JUDY, A. LEHMANN

SCARBOROUGH COLLEGE

Professors: J. M. MARGESON, English; J. S. MOIR, History; F. A. URQUHART, Zoology
Associate Professor: J. D. KING, Physics
Assistant Professors: A. M. LEGGATT, English; Miss W. J. BANCROFT, French; Miss V. PASKAL, Psychology; R. A. CARLTON, Sociology

ERINDALE COLLEGE

Principal: J. T. WILSON
Professor: S. P. ROSENBAUM
Assistant Professor: J. R. PERCY, Astronomy

NEW APPOINTMENTS

FACULTY OF ARTS AND SCIENCE

Professor and Chairman: D. A. CHANT, Zoology

Professors: D. R. HUGHES, Anthropology; B. S. DRAKE, J. S. MOIR, History; G. EDISON, F. E. SPARSHOTT, Philosophy; C. O. HINES, Physics; R. ROBINSON, Political Economy; N. W. BELL, Sociology

Visiting Professors: J. A. ROBERTS, Astronomy; J. A. HERMAN, Chemistry; Y. R. CHAO, H. G. CREEL, D. MALVANIA, S. SAEKI, East Asian Studies; E. C. MATHER, Geography; F. CHAYES, D. COOMBS, D. B. STEWART, P. TOULMIN, Geology; R. GREAVES, History; L. LOCKHART, Islamic Studies; V. R. GIUSTINIANI, B. L. O. RICHTER, L. F. SOLANO, Italian & Hispanic Studies; B. ABRAHAMSON, H. DAVIES, S. J. GOLDBERG, M. S. MACPHAIL, W. A. O. WAUGH, Mathematics; T. LANGAN, J. MARGOLIS, Philosophy; J. W. HOLMES, S. A. LAKOFF, Political Economy; G. B. STRUVE, Slavic Languages & Literature; N. W. BELL, Sociology

Associate Professors: R. VARMA, East Asian Studies; J. W. SIMMONS, Geography; E. KURAN, Islamic Studies; A. DOBELL, S. M. TROTT, Mathematics; J. B. HARTMAN, Philosophy; C. M. PENNER, Physics; D. S. CARLISLE, G. HOROWITZ, T. A. WILSON, Political Economy; I. M. CAMPBELL, D. METTRICK, Zoology

Visiting Associate Professors: M. HATTORI, H. KITIGAWA, East Asian Studies; H. RADJAVI, B. N. PARLETT, Mathematics; V. SERMAT, Psychology

Assistant Professors: W. M. HURLEY, J. D. KAYE, H. ROGERS, W. B. SCHROEDER, R. W. SHIRLEY, W. WEISSLEDER, B. YAMAGUCHI, Anthropology; M. J. Y. CLEMENT, Astronomy; R. E. DENGLER, T. C. HUTCHINSON, Mrs. C. SPARLING, G. R. THALER, Botany; R. O. HARRIS, O. MERESZ, J. RIDDICK, J. C. THOMPSON, A. WALKER, Chemistry; Miss D. DOHRENWEND, N. KOBAYASHI, Mrs. B. STEPHEN, East Asian Studies; G. SCAVIZZI, Fine Art; J. H. N. BRITTON, C. G. CLARK, J. T. LEMON, Geography; A. J. NALDRETT, G. NORRIS, D. H. WATKINSON, Geology; W. M. DICK, M. J. HODGE, J. P. B. KENYON, J. KORNBURG, Mrs. A. ROBSON, E. SHORTER, History; Miss M. E. MARMURA, Islamic Studies; R. J. BARTA, J. F. BURKE, Italian and Hispanic Studies; E. J. BARBEAU, E. P. BOTTA, H. DACHSLAGER, J. C. MASON, J. MCCOOL, P. G. NORTON, J. E. PALOHEIMO, E. PRUGOVECKI, P. ROSENTHAL, P. L. J. RYALL, D. SPRING, W. R. S. SUTHERLAND, P. TAYLOR, Mathematics; Mrs. H. L. HARDY, W. R. C. HARVEY, J. B. HARTMAN, Philosophy; L. DWORIN, R. KREPS, P. P. M. MEINCKE, V. SOOTS, Physics; J. BARKER, M. HARE, Political Economy; J. J. FUREDY, Mrs. J. E. GRUSEC, T. GRUSEC, M. E. RASHOTTE, A. S. ROSS, Psychology; C. BAUM, E. B. HARVEY, J. L. LENNARDS, B. WELLMAN, Sociology; D. W. DUNHAM, B. G. M. JAMIESON, M. MIYAGI, J. PALOHEIMO, D. POWER, J. J. B. SMITH, G. M. TELFORD, Zoology

Visiting Assistant Professors: A. V. LIMAN, H. SADDHATISSA, N. K. WAGLE, East Asian Studies; L. C. NKEMDIRIM, Geography; Sister M. TAUER, C. WANG, Mathematics; B. G. STROUD, Philosophy; B. G. M. JAMIESON, Zoology

Lecturers: M. J. CLEMENT, H. C. KING, J. R. PERCY, Astronomy; D. G. ANDERSON, D. N. BUTLER, R. G. GILES, J. E. HAWKINS, A. C. HOPKINSON, D. A. JONES, P. KUNTZ, O. SMIDSRD, C. WEBSTER, S. G. WHITTINGTON, C. R. WILLIS, Chemistry; S. HSIEH, Mrs. C. Y. LEE, K. TSURUOKA, East Asian Studies, R. DOWNING, M. SCHAEFER, Fine Art; K. HEWITT, Geography; A. R. BERGER, Geology; T. M. BRADY, A. ROSSO, History; Mrs. H. SHAKEEL, Islamic Studies; J. ESCOBAR, J. G. HUGHES, Miss S. N. PETERS, Miss O. L. ZORZI, Italian and Hispanic Studies; S. R. DAVIES, Mathematics; P. M. CHURCHLAND, P. GOOCH, Philosophy; J. F. DINGLE, Political Economy; D. M. KELLER, Miss J. M. PRESTON, Psychology; R. LINDHEIM, D. S. STRUK, Slavic Languages & Literature; G. A. KNERER, N. MROSOVSKY, Zoology

Visiting Lecturers: J. MADDEN, Political Economy; H. WELCH, Zoology

Special Lecturers: V. YANG, East Asian Studies; A. PAINE, J. PAUL, Fine Art; P. GEORGE, F. HAWKINS, Political Economy; J. LONG, A. NEWMAN, C. SURRIDGE, Psychology

Visiting Special Lecturers: P. DE CARVALHO, Miss E. NISSEN, Italian and Hispanic Studies

UNIVERSITY COLLEGE

Professors: C. R. BLAKE, English; H. EICHNER, German

Visiting Professors: P. G. C. VERNOIS, French; F. APETSBERGER, Miss M. MARE, German

Associate Professors: W. H. HALEWOOD, English; W. ROBIDOUX, French

Visiting Associate Professors: T. M. ROBINSON, J. SHIEL, Classics

Assistant Professors: T. G. ELLIOTT, J. GRANT, Classics; D. N. KLAUSNER, A. M. LEGGATT, M. MUELLER, English; L. E. DOUCETTE, J. K. GILBERT, E. LEHOUCK, French; B. PESCHKEN, German; F. TALMAGE, Near Eastern Studies

Visiting Assistant Professor: H. PALSSON, German

Lecturers: T. F. BAXTER, Classics; A. B. CAMERON, C. R. CHASE, S. NIERMEIER, English; Miss N. BOURSIER, D. CLANDFIELD, R. HRUBI, French; D. MYERS, German

NEW COLLEGE

Associate Professor: W. H. HALEWOOD
Assistant Professors: J. GILBERT, M. MUELLER
Lecturers: A. CAMERON, D. CLANDFIELD

FACULTY OF APPLIED SCIENCE AND ENGINEERING

Professors: H. L. WILLIAMS, Chemical Engineering; K. T. AUST, J. W. RUTTER, Metallurgy & Materials Science
Visiting Professor: J. A. ROBERTS, Electrical Engineering
Associate Professors: R. T. WOODHAMS, Chemical Engineering; T. C. KENNEY, Civil Engineering; Mrs. U. FRANKLIN, Metallurgy & Materials Science
Visiting Associate Professor: J. C. BARLOW, Electrical Engineering
Assistant Professors: A. J. HOWSMAN, W. T. CHU, Aerospace Studies; C. CHAFFEY, Chemical Engineering; E. J. DAVISON, I. H. ROWE, C. A. T. SALAMA, R. S. SEGSWORTH, Electrical Engineering; H. O'BEIRNE, Biomedical Electronics; Mrs. S. M. ABDELMESSIH, J. A. BUZACOTT, M. J. M. POSNER, Industrial Engineering; D. JAMES, P. S. SHEN, B. TABBAROK, C. A. WARD, Mechanical Engineering; W. A. MILLER, R. S. SEGSWORTH, Metallurgy and Materials Science
Lecturers: L. D. REID, Aerospace Studies; I. CUMMINGS, Electrical Engineering; A. A. CUNNINGHAM, H. W. JACKMAN, A. K. MACKWORTH, Industrial Engineering
Special Lecturer: R. B. R. WITTKOP, Civil Engineering

SCHOOL OF BUSINESS

Associate Professors: J. D. KYLE, M. S. SOMMERS

INSTITUTE OF CHILD STUDY

Assistant Professor: D. R. HARDY
Special Lecturer: M. GOODMAN

FACULTY OF DENTISTRY

Professor: J. H. HIBBERD
Associates: B. A. RICHARDSON, F. PULVER
Lecturers: Mrs. N. E. BURGESS, R. B. DAY, G. EMERY, R. JOHNSON, W. STURTRIDGE

FACULTY OF FOOD SCIENCES

Assistant Professor: J. A. BLAKE

FACULTY OF FORESTRY

Lecturers: R. J. FESSENDEN, F. J. KEENAN, W. A. MORSINK

SCHOOL OF GRADUATE STUDIES

Chairmen: Miss M. E. WHITE, Classics; H. EICHNER, German

SCHOOL OF HYGIENE

Visiting Professor: W. H. R. LUMSDEN, Parasitology
Assistant Professors: T. W. ANDERSON, R. BARRON, D. B. COATES, P. N. COREY, L. ENDRENYI, H. MOGHADAM-KAZVINI, Epidemiology & Biometrics; W. LEERS, Microbiology; Mrs. A. BODLEY, Nutrition; Miss S. B. McIVER, Parasitology; H. HUGHES, D. R. WARREN, Physiological Hygiene; H. MOGHADAM-KAZVINI, Health Administration
Lecturer: V. V. KINGSLEY, Microbiology



The Rt. Hon. Vincent Massey,
O.M., C.C., G.H.
1887-1967



Dr. A. R. Gordon
1896-1967



TOP
Dr. Eugene Forsey



Dr. John Sloane Dickey

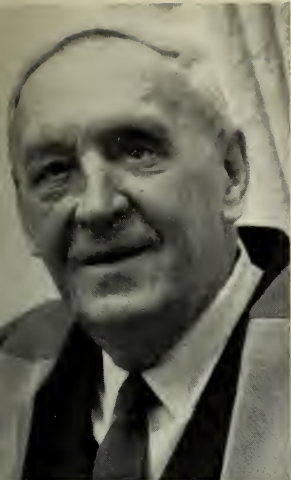


Dr. Henry Spencer Moore

Dr. Michael Polanyi



Dr. Stephen B. Romanoff



Professor Donald J. McDougall



Professor Barker Fairley



Miss Alice Girard

Mr. Justice Bora Laskin

BOTTOM
Professor Francis R. Scott

Miss Jean Sutherland Boggs





OFF-CAMPUS

Erindale College opens its doors
to the Minister of University Affairs,
to the public,
to its first class





Scarborough College graduates its first class and remains an architectural drawing card – visit of the American Association of Junior Colleges





THE ST. GEORGE CAMPUS FROM THE AIR

Identifiable landmarks, from the bottom: between Spadina Avenue and Huron Street: College of Education, Benson Building, and the double curves of New College; between Huron and St. George Streets: Rochdale College, the cleared site for the Humanities and Social Sciences Library opposite the path patterns of the Ramsay Wright Zoological Laboratories, Sidney Smith Hall, Lash Miller



Chemical Laboratories, the tower of the new McLennan Laboratories, the tall smokestack behind the Pharmacy Building, and the Superintendent's Building; between St. George Street and Queen's Park: Varsity Stadium, the Museum with the white globe of the Planetarium tucked behind the Edward Johnson Building, Trinity College, Hart House, University College, the white bulk of the new Medical Sciences Building opposite the dome of Convocation Hall, and the Galbraith Building facing St. George Street



These girls are off to summer work camp projects in Africa:
Margaret Macdonald, Cherry Elliott, Joan Baillie, Mary Prentiss

Varsity Fund scholars:
John Arthur, John Barclay and
Sheldon Frieson



STUDENTS



Graduation day for new Bachelors of Science: Titus Owolabi, Howard Krieger, Carol Piu Yiu Lee, Gary Reid and Joseph Greenbaum

A counselling service for freshmen applicants, operated by Georgina Solymar (back to camera) and Bernie Zukerman (right)





The President
and Mrs. Bissell

- and Zephyr
- at Harvard



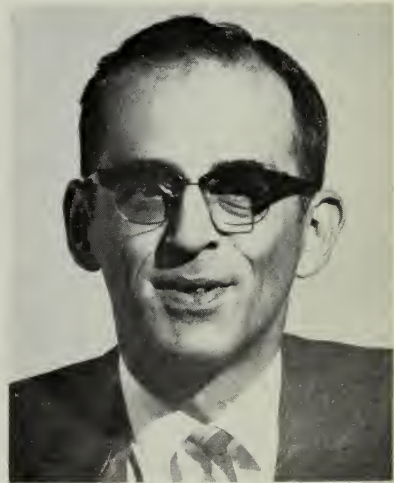
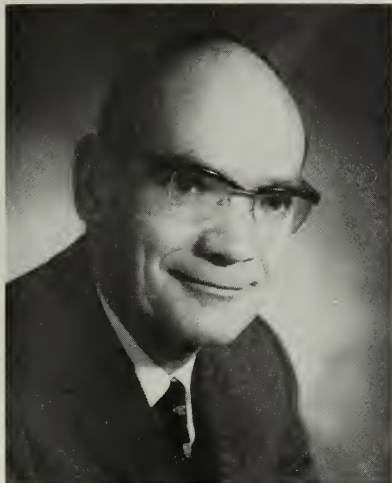


Marshall McLuhan returned from his year at Fordham University to attend his daughter Stephanie's graduation



Something different in academic dress - Dr. J. D. Hamilton as a Doctor of Clinical Sciences, University of Lagos

The faculty elected Professors J. B. Milner, Faculty of Law, and P. G. Rooney, Department of Mathematics, to the President's Council





Visitors to the Rare Book section of the Library:
H.R.H. Princess Alexandra and Mr. Angus Ogilvie, with Miss Marion Brown,
head of the section, Mr. J. H. Sword and Major Peter Clark



Mr. Ralph Perry, former
Lord Mayor of London,
presented the University
with his copy of Stowe's
London (1653) when he
visited the Library
with Sir Harry Lintott,
United Kingdom High
Commissioner to Canada

FACULTY OF LAW

Associate Professors: F. IACOBUCCI, R. E. SCANE

Assistant Professor: C. H. McNAIRN

SCHOOL OF LIBRARY SCIENCE

Visiting Professor: P. R. PENLAND

Associate Professor: D. J. FORGIE

Assistant Professor: Mrs. K. H. PACKER

FACULTY OF MEDICINE

Directors: L. R. CHRISTENSEN, Animal Facilities; R. S. JULIUS, Medical Computer Facilities; J. N. SWANSON, Audiovisual Services

Professor and Chairman: R. C. A. HUNTER, Psychiatry

Professors: L. E. NORRIS, Anaesthesia; E. G. BERTRAM, Anatomy; W. R. BRUCE, L. R. CHRISTENSEN, Medical Biophysics; J. PEARCE, Physiology; W. D. ROSS, Psychiatry

Visiting Professors: O. HORNYKIEWICZ, K. E. LIVINGSTON, J. TALESNIK, Pharmacology; C. B. MUELLER, Surgery

Associate Professors: J. B. JONES, K. G. SCRIMGEOUR, N. Z. STANACEV, Biochemistry; M. GOLD, Medical Biophysics; R. BORTH, Medicine and Obstetrics & Gynaecology; W. PAUL, Pharmacology; N. W. BELL, Psychiatry; K. R. LIVINGSTONE, Surgery

Assistant Professors: A. C. BRYAN, S. EISEN, Anaesthesia; P. C. FLEMING, W. D. LEERS, Bacteriology; A. MENON, B. SARKAR, D. TURNER, Biochemistry; R. G. MILLER, Medical Biophysics; A. J. BECKER, K. N. JEEJEEBHOY, J. N. SWANSON, Medicine; L. J. HARRIS, Obstetrics and Gynaecology; N. ASPIN, R. EHRlich, P. C. FLEMING, S. J. KOEGLER, Paediatrics; G. FEUER, A. POLLARD, Pathological Chemistry; A. G. BELL, M. J. LYNCH, P. H. PINKERTON, Pathology; D. M. DERRY, P. SEEMAN, Pharmacology; R. NINOMIYA, H. SANNENBERG, Physiology; B. J. SHAPIRO, Radiology; Miss R. O. F. BRADSHAW, Rehabilitation Medicine; G. F. PENNAL, D. A. TURNER, Surgery

Visiting Assistant Professor: G. SIMON, Pathology

Associates: J. KOZIE, Art as Applied to Medicine; I. BRODER, G. G. FORSTNER, D. R. WILSON, Medicine; J. W. GOODWIN, J. E. MILLIGAN, Obstetrics and Gynaecology; M. J. FUJIWARA, E. F. SAUNDERS, Paediatrics; Mrs. B. W. STEINER, Psychiatry

Lecturers: B. LIEBGOTT, Anatomy; Miss B. HOUGH, Art as Applied to Medicine; J. G. SILAH, Pathological Chemistry; A. J. BARSON, Pathology; Mrs. J. A. CODDLING, Physiology; Miss E. J. COOK, Mrs. S. R. IRVING, Mrs. C. H. Stewart, Rehabilitation Medicine

BANTING AND BEST DEPARTMENT OF MEDICAL RESEARCH

Assistant Professor: S. K. PAVANARAM

FACULTY OF MUSIC

Assistant Professor: R. CHANDLER

Lecturers: R. A. FALCK, D. HOLMAN, G. KRAUS, N. KUZMICH, D. ZAFER

Special Lecturer: M. KOLINSKI

SCHOOL OF NURSING

Assistant Professors: Mrs. M. BALSARA, Miss N. CUNNINGHAM, Miss R. CUNNINGHAM, Miss M. MUNRO, Miss D. RIDDELL, Miss L. R. WRIGHT

Lecturers: Mrs. P. ADAMSON, Mrs. M. L. CARTER, Mrs. J. EDEN, Mrs. J. HUMPHREYS, Miss D. E. MARSHALL, Mrs. E. McVEY, Miss S. O'HEIR, Mrs. A. J. ROUSE

Special Lecturers: Mrs. K. L. MAXWELL, Miss N. STEARNS

FACULTY OF PHARMACY

Professor: E. V. STIEB

Special Lecturer: P. D. COOPER

SCHOOL OF SOCIAL WORK

Associate Professor: MRS. B. M. ALLAN

Assistant Professor: H. IRVING

DEPARTMENT OF COMPUTER SCIENCE

Professor: R. S. JULIUS

Visiting Associate Professor: B. PARLETT

Assistant Professors: E. S. LEE, P. H. ROOSEN-RUNGE

CENTRES AND INSTITUTES

Directors: R. B. PARKER, Centre for the Study of the Drama; M. JOOS, Centre for Linguistic Studies

Visiting Professor: H. PALSSON, Centre for Medieval Studies

Assistant Professors: H. ROGERS, J. D. KAYE, Centre for Linguistic Studies; D. KLAUSEN, Centre for Medieval Studies

SCARBOROUGH COLLEGE

Associate Professors: J. B. HARTMAN, Philosophy; I. M. CAMPBELL, Zoology

Assistant Professors: J. N. GRANT, Classics; L. E. DOUCETTE, Miss W. BANCROFT, French; B. PESCHKEN, German; W. M. DICK, History; G. SCAVIZZI, Fine Art; H. B. SCHROEDER, R. W. SHIRLEY, Anthropology; A. S. ROSS, Psychology, R. E. DENGLER, Botany; H. DACHSLAGER, Mathematics; J. M. PERZ, V. SOOTS, Physics; M. MIYAGI, Zoology

Visiting Assistant Professor: C. C. CLARKE, Geography

Lecturers: J. H. CORBETT, Classics; A. C. THOMAS, English; Mrs. J. A. CURTIS, French; P. W. GOOCH, T. P. MCKENNA, Philosophy; E. G. COSTA, Italian and Hispanic Studies; M. W. BUCOVETSKY, Economics

Lecturers: P. V. BISHOP, Political Science; D. M. KELLER, Psychiatry; M. E. HANNA, Sociology; D. P. HUBE, Astronomy; Mrs. C. MADAHAR, Botany; B. GREENWOOD, Geography; A. R. BERGER, Geology; Mrs. H. K. BOTTA, Mathematics; V. V. KINGSLEY, Microbiology

Special Lecturer: F. J. HERNANDEZ, Spanish

ERINDALE COLLEGE

Director: B. W. BARTLETT, Physical Education

Associate Professors: G. HOROWITZ, Political Science; S. M. TROTT, Mathematics; P. J. POINTING, D. METTRICK, Zoology

Assistant Professors: T. G. ELLIOTT, Classics; M. HARE, Economics; G. R. THALER, Botany; D. H. WATKINSON, Geology; P. MEINCKE, Physics

Lecturers: Mrs. S. HOLE, T. H. ADAMSKI, English; P. FINDLAY, French; M. DAFOE, History; Miss O. L. ZORZI, Italian; O. HEGYI, Spanish; W. MEYER-ERLACH, German; A. T. REES-POWELL, Sociology; J. R. PERCY, Astronomy; G. K. MORRIS, Zoology; D. R. CLARK, J. A. P. CIRUNA, Chemistry

Special Lecturer: Mrs. R. M. VANDERBURGH, Anthropology

HONORARY DEGREES

The degree of Doctor of Laws (*honoris causa*) was conferred on the following persons:

JEAN SUTHERLAND BOGGS, Director of the National Gallery of Canada (November 24, 1967)

JOHN SLOAN DICKEY, President of Dartmouth College (May 31, 1968)

ALICE GIRARD, Dean, Faculty of Nursing, Université de Montréal (May 24, 1968)

BORA LASKIN, Justice of the Ontario Court of Appeal (June 6, 1968)

HENRY SPENCER MOORE, sculptor (May 28, 1968)

MICHAEL POLANYI, Senior Research Fellow, Merton College, Oxford (November 24, 1967)

STEPHEN B. ROMAN, Chairman and President, Denison Mines Limited (November 24, 1967)

The degree of Doctor of Letters (*honoris causa*) was conferred on the following persons:

- BARKER FAIRLEY, Professor Emeritus, Department of German (May 29, 1968)
 EUGENE ALFRED FORSEY, Director of Research, Canadian Labour Congress (May 30, 1968)
 DONALD JOHN MCDUGALL, Professor Emeritus of History (May 30, 1968)
 FRANCIS REGINALD SCOTT, former Dean of Law, McGill University (June 10, 1968)

LECTURES AT THE UNIVERSITY

The Centennial Lectures

- Dr. C. H. Townes, Professor at Large, University of California, Berkeley, and Nobel prize winner, on "Masers and Lasers Present and Future," "Extra-terrestrial Naturally Occurring Masers," and "Instabilities in High Intensity Light Beams."
- Dr. Andrew Alfoldi, Professor Emeritus, Institute for Advanced Study, Princeton, three lectures on "Greek and Roman Art: A Mirror of Politics, Religion and Literature": "The Domination of the Cavalry in Greece and Rome after the Fall of the Kings," "The Alexandrian Gods and the Vota Publica in Rome," and "The Final Scene of the Aeneid on a Praenestine Cista."
- Dr. Arnold Smith, Secretary-General of the Commonwealth, on "Canada and the New Commonwealth."
- Dr. Josef Pieper, Philosopher, Essayist and Social Critic, on "The Concept of Philosophy," "History and Hope," and "Real and Artificial Feasts."
- Sir James Duff, co-author of *University Government in Canada* (The Duff-Berdahl Report), on "British Universities: New Types and Old," "British Universities: Recent Developments," and "New Universities in the Commonwealth."
- Dr. H. G. Johnson, London School of Economics and University of Chicago, on "Economic Theory and Contemporary Society."
- Rev. W. C. Smith, Director, Center for the Study of World Religions, Harvard University, on "Belief and Faith, as seen by a Comparative Religionist," and "Belief and Faith: Judeo-Christian Interpretations."
- Dr. W. E. Swinton, Centennial Professor, University of Toronto, six lectures on "Aspects of Evolution in Fossil Vertebrates": "The Link between Invertebrate and Vertebrate," "A Fish Gives Rise to the Amphibia," "An Amphibian Gives Birth to Reptiles," "A Reptile Becomes a Bird," "Mammal-like Reptiles and True Mammals," and "Mammals and the Emergence of Man"; and 8 lectures on "Evolution in the XIX Century - Without the Darwins": "T. Malthus and W. Paley: Two dissident clergymen," "J. Lamarck and G. Cuvier: Two dissident Frenchmen," "Drs. Wells, Lawrence and Prichard: Three evolutionary Scotsmen," "Lord Tennyson and Karl Marx: The Poet and the Pauper," "Lord Kelvin and Gregor Mendel: The Physicist and the Priest," "Herbert Spencer and Samuel Butler: Two evolutionary enthusiasts," and "A. R. Wallace and T. H. Huxley: Two sailor-naturalists."
- The Gray Lecture was given by Professor Gérard Bergeron, Université Laval, on "Some Thoughts on French Canada's Mood at the End of Centennial Year."
- The Walter Wright Lectureship in Ophthalmology was given by Dr. A. J. Elliot, Professor of Ophthalmology, University of British Columbia, on "Recent Advances in the Diagnosis and Management of Macular and Paramacular Tumours."
- A Spendlove Memorial Lecture, Royal Ontario Museum, was given by Dr. Hilda Neatby, Chairman, History Department, University of Saskatchewan, on "Pierre Guy: a Canadian Bourgeois in Old Montreal."
- The first Ray F. Farquharson Memorial Lecture was given by Dr. J. E. Howard, Professor of Medicine, Johns Hopkins University, on "Reflections on Calcium Habits in Man."
- The third W. E. Blatz Memorial lecture was given by Dr. Urie Bronfenbrenner, Professor of Psychology and of Child Development and Family Relationships, Cornell University, on "The Split Family: Children vs. Adults."
- The Ninth Annual Dr. Harry Shields Lecture was given by Dr. E. I. Eger II, Department of Anesthesia, University of California, on "The Uses of Anesthetic Potency."
- The Visiting Lectureship in American Studies was given by Professor W. H. Jordy on "Louis Sullivan: A Vision of America": "The Stuff of Vision," and "The Justification of Vision."
- The Victoria College Cousland Lectures, "The Theology of Death as a Preliminary Ethical Insight," were given by Dr. William Stringfellow, England, on "The Meaning of the Secular," "The Principalities and Powers," and "The Idolatry of Death."
- Professor Johannes Andenaes, Director, Institute of Criminology and Criminal Law, University of Oslo, Norway, on "Does Punishment Deter Crime?"
- Dr. M. P. Bachynski, Director, R.C.A. Victor Research Laboratories, Montreal, on "Waves in Plasmas."

- Professor A. L. Basham, Australian National University, Canberra, on "The Secular Tradition in Ancient India."
- Mr. J. L. Borges, Argentinian writer, holder of the Charles Eliot Norton Chair of Poetry at Harvard University, on "Tales and the Fantastic."
- Mr. Alan Borovy, Director, Labour Committee for Human Rights, on "Minority Groups and Action in the Local Community."
- Dr. A. J. Boulton, University of East Anglia, on "Heterocyclic Rearrangements."
- Professor D. Bunker, School of Business Administration, State University of New York at Buffalo, on "Determinants of Organizational Adaptability."
- Professor Alan Cameron, Visiting Professor of Byzantine Studies, Columbia University, on "Poetry and Propaganda at the Court of Honorius."
- Dr. I. L. Cameron, Upstate Medical Center, State University of New York, on "Growth Characteristics of Tetrahymena."
- Dr. E. W. Caspari, Department of Biology, University of Rochester, on "The Genetic Basis of Eye Color Pigmentation in *Ephesia*."
- Sir Hugh Casson, architect and designer, consultant on the National Defence Headquarters, on "Modern Architecture in Canada."
- Dr. Rae Chittick, Professor Emeritus, School for Graduate Nurses, McGill, on "Nursing: The Next 100 Years."
- Professor Marshall Clagett, School of Historical Studies, Institute for Advanced Study, Princeton, on "Euclid in the Middle Ages."
- Mr. Grady Clay, Editor of *Landscape Architecture Journal*, on "Contemporary Pressures on the City."
- Professor A. C. Crombie, Head of the History of Science Department, Oxford University, on "Mersenne and the Problem of Scientific Acceptability."
- Mr. Robert DeMarest, College of Physicians and Surgeons, New York, on "Changes in Design and Style of Medical Illustration, created by the New Teaching Media."
- Mr. Arnold Edinborough, Editor, *Saturday Night*, on *Romeo and Juliet*, *A Midsummer Night's Dream*, *Tartuffe*, and *The Seagull*.
- Professor C. W. J. Eliot, University of British Columbia, on "Athens in the Time of Byron."
- Mr. R. M. Evans, Director, Photographic Technology Division, Eastman Kodak Company, Rochester, New York, on "The Perception of Colour."
- Professor W. C. Fleming, Chairman, Department of Fine Art, Syracuse University, on "The Arts and the Creative Imagination."
- Professor Elio Gianturco, Hunter College, on "Giambattista Vico."
- Dr. G. N. Glew, Dow Chemical of Canada Limited, Sarnia, on "Solid and Liquid Aqueous Solutions."
- Professor Michael Gough, Director, British Institute of Archaeology, Ankara, Turkey, on "Greek Pedimental Sculpture," and on "Alahan Monastery: the Campaigns of 1965 and 1967."
- Professor Lewis Hanke, University of California, Irvine, on "The Historical Literature of the Spanish Conquest of America."
- Professor J. N. Hazard, Columbia, on "African Socialism and the Soviet Model."
- Mr. David Hicks, England, on "Berber Architecture and Music."
- Dr. D. G. Hill, Director, Ontario Commission for Human Rights, on "The International, National and Local Issues in the Field of Human Rights."
- Professor M. J. Hinich, Department of Statistics, Carnegie-Mellon University, Pittsburgh, on "Applications of the Discrete Fourier Transform to Time Series Analysis."
- Mrs. Carolyn Horton, leading American book restorer, New York, on "Saving the Libraries of Florence."
- Mr. Ralph Iredale, Architect, specialist in industrial, non-traditional building systems, on "New Ways of Building."
- Professor W. H. Jordy, Brown University, Visiting Professor of American Studies, two lectures on "Louis Sullivan: A Vision of America (the Realization of it in his Architecture)."
- Dr. Alex Keller, Lecturer in the History of Science, Leicester University, on "Archimedes under Water."
- Professor Raymond Klibansky, Department of Philosophy, McGill University, and President, Institut International de Philosophie, Paris, on "Nicholas of Cusa and the New Cosmology."
- Academician V. A. Kotelnikov, Member of the Academy of Science of the USSR, on "Radio Location of Planets."
- Professor Melvin Kranzberg, Department of History, Case-Western Reserve University, and Secretary, Society for the History of Technology, on "Technology and Human Values."
- Professor P. O. Kristeller, Columbia University, on "Manuscript Research on Renaissance Humanism."
- Professor T. S. Kuhn, Programme of the History and Philosophy of Science, Princeton University, on "Recurrent Patterns in Scientific Development."
- Mr. James Laver, Keeper of the Departments of Engraving, Illustration and Design, Victoria and Albert Museum, 1938-59, on "The Decor of Drama," and "The Costume of Drama."
- Professor E. E. Lawler, III, Department of Administrative Sciences, Yale University, on "Managerial Compensation."
- Mr. Conrad Lehmann, author, Berlin, on "Multi-Storey Suspension Structures."
- Professor J. Linhart, Director, Laboratory of Learning, Psychological Institute, Czechoslovak Academy of Sciences, Prague, on "Instrumental Learning and Exploratory Motivation."

- Professor James Lotz, St. Paul's University, and Research Director, Canadian Research Centre for Anthropology, on "The Development of Canada's Northland."
- Professor Kazumi Maki, University of California, La Jolla, three lectures on "The Theory of Superconductivity."
- Professor Allen Matusow, Rice University, on "Kennedy and the Presidency: The Education of a Conservative."
- Mr. J. V. McMullan, owner of the world's best private collection of Islamic carpets, on "Carpets of the Orient."
- Professor Everett Mendelsohn, Department of the History of Sciences, Harvard University, on "Hermann von Helmholtz and the Revolution in Mid-Nineteenth Century Biology."
- Dr. W. L. Miranker, T. J. Watson Research Center, IBM, Yorktown Heights, on "Parallelism in Numerical Analysis."
- Mrs. Doris Pascal, Pascal Gallery, Toronto, on "The Art of Printmaking and Canadian Prints."
- Professor F. W. Pierce, University of Sheffield, on "The Spanish Renaissance Epic," and "Cervantes' El celoso extremeño."
- Academician A. M. Prokhorov, Member of the Academy of Sciences of the USSR, on "Quantum Electronics."
- Professor M. H. L. Pryce, University of California, Los Angeles, on "Magnetism and Colour."
- Dr. Gerardo Ramos, Universidad del Valle, Cali, Colombia, on "The University of the Valley - Dynamic Educational Enterprise."
- Dr. Marian Stangenberg, Director, Institute of Limnology and Fishery, Wroctaw, Poland, on "Phosphorus in the Lake Waters of Poland."
- Professor G. R. Storry, St. Antony's College, Oxford, on "'Pheasant and Phoenix', Japan's Critical Century, 1867-1967."
- Professor A. van Wijngaarden, University of Amsterdam, Netherlands, two lectures on "Formalization of Formal and Natural Languages."
- Professor Jean-Paul Vinay, Department of Linguistics, University of Victoria, on "Trio pour Deux Musiciens ou Comment Définir la Syllistique."
- Professor John Watt, University of Hull, on "Hostinensis and the College of Cardinals."
- Mr. Clifford Williams, Artistic Director of Theatre Toronto, on *The Drummer Boy*, *Little Murders*, *The Soldiers*, and *A Festival of Carol's*.
- Professor L. P. Williams, Department of History, Cornell University, on "Physics and Philosophy in Early Nineteenth-Century France."
- Sir Hugh Wilson, President, Royal Institute of British Architects, architect-planner of Cumberland New Town, Scotland, on "The Design of Urban Communities."
- Professor Maurice Zermatten, Swiss novelist and critic, Ecole Polytechnique Fédérale de Zürich, on "Le Baroque dans la Littérature Européenne."

LECTURE SERIES

Victoria College Series

- Dr. R. H. Bainton, Professor Emeritus of Divinity, Yale University, on "Erasmus and the Liberal Catholic Reform," and "Erasmus and the Protestant Church."
- Mr. J. W. Holmes, Director-General, Canadian Institute of International Affairs, and Visiting Professor, International Affairs, University of Toronto, on "Canada and the Pax Americana."

Erindale College Inaugural Series of Lectures: "Frontiers of Science"

- Dr. W. E. Beckel, Dean, Scarborough College, on "The Fundamental Unit of Life: Its Origin and Operation."
- Dr. A. D. Allen, Dean, Faculty of Arts and Science, on "Some Old and New Molecules."
- Dr. J. T. Wilson, Principal, Erindale College, on "Continental Drift: a Revolution in Earth Sciences."
- Dr. E. L. Thomas, Associate Director, Institute of Bio-Medical Electronics and Professor of Pharmacology, on "Men and Machines."
- Dr. D. A. MacRae, Director, David Dunlap Observatory and Chairman of the Department of Astronomy, on "Scanning and Probing the Milky Way."
- Dr. W. E. Swinton, Centennial Professor, on "Giants and Giantism."
- Dr. E. A. Robinson, Associate Dean, Erindale College and Professor of Chemistry, on "Atoms and Molecules: Exploring Nature's Architecture."
- Dr. A. D. Misener, Director, Great Lakes Institute and Professor of Physics, on "The Uniqueness of the Great Lakes."

School of Social Work Series: "Minds on the Move"

- Dr. F. R. Joubin, Consultant to the Director, United Nations Development Program, on "Underdeveloped Areas of the World: An Assessment of Technical Assistance."

- Dr. D. G. Hill, Director, Ontario Human Rights Commission, on "Protecting Human Rights in Ontario."
 The Hon. John Yaremko, Minister, Social and Family Services, Province of Ontario, on "The New Social Services."
 Mr. K. L. Carter, Chairman, Royal Commission on Taxation, on "Relating Taxation Policy to the Needs of People."

Royal Ontario Museum Series

- Dr. Pratapaditya Pal, Keeper of the Indian Collection, Museum of Fine Arts, Boston, on "An Inquiry into Tibetan Painting."
 Professor Benjamin Rowland Jr., Gleason Professor of Fine Arts, Fogg Museum, Harvard University, on "Masterpieces of Early Indian Sculpture."
 Professor Stella Kramrisch, Curator of Indian Art, Philadelphia Museum of Art, on "Ritual Art in Tribe and Village in India."
 Mr. Carl Nordenfalk, Director-General, National Museum of Arts, Stockholm, on "Collection of a Queen: Christina of Sweden."
 Mrs. G. E. P. How, England, authority on antique silver, on "The Silver Lion."
 Doctor Welton Marquis, Head of the Department of Music, University of British Columbia, a series of three lectures on "Music and Society."
 Mr. Horace Lapp, musician, on "Art of Improvisation."

Faculty of Music Series

- Professor Boris Nelson, University of Toledo, on "The Art of Criticism."

University College Alexander Lecture Series: "The Uses of Literature, 1750-1850"

- Professor F. E. Mineka, Cornell University, on "Heavenward," "Earthward," and "Inward."

Lectures in Commemoration of the Opening of the McLennan Physical Laboratories

- Dr. G. Hertzberg, National Research Council, on "The Problem of the Diffuse Interstellar Lines."
 Professor C. H. Townes, University of California, Centennial Professor, on "What an Intense Laser Beam does to Matter and vice versa."
 Professor S. Chandrasekhar, University of Chicago, on "Gravitational Collapse."
 Professor A. Kastler, Université de Paris, on "Interactions between Atoms and Electromagnetic Fields studied by Optical Pumping Techniques."
 Professor M. Kac, The Rockefeller University, on "High Speed Computing as a New Experimental Technique in Mathematics and Physics."
 Professor R. H. Dicke, Princeton University, on "Gravitation and the Sun's Rotation."

Institute for Aerospace Studies

- Dr. A. Belozarov, Institute for Aerospace Studies, on "Study of the Initial Ionization Process in a Strong Shock Wave."
 Dr. D. Blackstock, University of Rochester, on "The Acoustic Boundary Layer."
 Prof. N. Davids, Pennsylvania University, on "Finite Element Approach in Stress Propagation."
 Dr. T. N. Edelbaum, Analytical Mechanics Associates Inc., on "Optimal Guidance from Hyperbolic to Circular Orbits."
 Dr. N. C. Freeman, Princeton University, on "Unsteady Expansion of a Gas into a Vacuum."
 Dr. W. Gauvin, Noranda, on "Research Management."
 Mr. W. E. Giberson, Jet Propulsion Laboratory, on "Surveying the Moon with Surveyor."
 Dr. L. F. Henderson, Cornell University, on "Refraction of Shock Waves and Detonation Waves."
 Dr. J. A. Hynek, Northwestern University, on "Unidentified Flying Objects."
 Dr. W. Johnson, University of Toronto, on "Man in Space."
 Dr. P. Lapp, DeHavilland Aircraft, on "Research Management."
 Mr. S. S. Manson, National Aeronautics and Space Administration, on "NASA's Involvement in Material Science."
 Mr. G. B. MacKimmie, RCA Victor Company Ltd., on "Research Management"
 Dr. J. B. MacInnes, Ocean Systems Inc., on "Hydrospace."
 Dr. G. Melvill-Jones, McGill University, on "Man, the Ingenious Machine."
 Dr. D. R. O'Keefe, Institute for Aerospace Studies, on "The Scattering of High Energy Argon Atoms from a Well Characterized (100) Tungsten Surface."
 Prof. A. K. Oppenheim, University of California, Berkeley, on "Recent Studies in Gas Dynamic Explosions."
 Dr. G. V. Parkinson, University of British Columbia, on "Subsonic Unsteady Flow."
 Prof. W. Priestler, University of Bonn, on "Thermal Structure of the Upper Atmosphere."
 Prof. B. R. Seth, Oregon State University, on "Elastic-Plastic Transition in Metals."

- Dr. S. R. M. Sinclair, Institute for Aerospace Studies, on "Shock Wave Structure in Gas Mixtures and Plasmas."
- Mr. F. Thurston, National Aeronautical Establishment, on "Research Management."
- Dr. S. Way, Westinghouse Research Laboratory, on "MHD Power Generation."
- Prof. D. Wilkinson, Palmer Physical Laboratory, Princeton, on "The Primeval Fireball - a New Tool in Cosmology."
- Dr. J. R. Whitehead, Principal Science Adviser, Science Secretariat, Ottawa, on "Research Management."
- Mr. T. M. York, James Forrestal Research Center, Princeton University, on "Pressure Distribution within the Structure of a Propagating Current Sheet."

History and Philosophy of Science Lecture Series

- Dr. John W. Abrams, Professor of Industrial Engineering and of History at the University of Toronto, on "Science, Technology and the Humanities."
- Dr. Melvin Kranzberg, Professor of History, Case-Western Reserve University, on "Technology and Human Values."
- Professor T. S. Kuhn, Programme of the History and Philosophy of Science, Princeton University, on "Recurrent Patterns in Scientific Development."
- Professor Everett Mendelsohn, Department of the History of Science, Harvard University, on "Hermann von Helmholtz and the Revolution in Mid-Nineteenth Century Biology."
- Professor G. R. Paterson, Faculty of Pharmacy, University of Toronto, on "Alkaloids - their Discovery and its Significance."
- Professor Marshall Clagett, The Institute for Advanced Study, on "Euclid in the Middle Ages."
- M. J. S. Hodge, Institute for the History and Philosophy of Science and Technology, University of Toronto, on "The Origins of Darwinism."
- Dr. Raymond Klibansky, Professor of Philosophy, McGill University, on "Nicholas of Cusa and the New Cosmology."
- Professor Stillman Drake, Institute for the History and Philosophy of Science and Technology, University of Toronto, on "Physics and Tradition - Leonardo to Galileo."
- Dr. A. C. Crombie, Head, Department of the History of Science, Oxford University, on "Mersenne and the Problem of Scientific Acceptability."

SCHOLARLY ADDRESSES BY MEMBERS OF THE STAFF

- Dr. D. S. ABBEY, on "Attitude Formation and Change" to the Canadian Association for Mentally Retarded Children; on "Educational Needs and Architectural Solutions" at the Design Workshop, Scarborough College; on "Social Psychology of the Visual Arts" at Seminar II: "Are Art Galleries Obsolete?"; Guild Inn, Toronto; on "Some Factors in Workers' Decisions to Forego Retraining" at the National Seminar on Adult Education Research, Chicago; on "Notes on the R & D Programs of OISE" and on "What's Really Important about School?" to the annual meeting of the Canadian Council for Research in Education, Quebec.
- Professor S. M. ABDELMESSIH, on "Investigation of Noise in UHF Diodes" at the 23rd National Electronics Conference in Chicago.
- Professor A. S. ABEL, on "Provincial Government" to the Senior Officers' Conference of the Province of Ontario; on "What Price Order and Good Government?", the inauguration of the Special Lecture series at the University of Western Ontario.
- Professor J. W. ABRAMS, on "New Techniques in Management" in the Advanced Study of Health Services, Organization and Administration, School of Hygiene; on "The Toronto Programme in the History and Philosophy of Science" to the Canadian Academy for the History of Pharmacy; on "An Administrative Decision Model of Hospital Operating Room Facilities" (co-author) to the Institute of Management Science in Mexico City; on "Present State of Operational Research in Canada" at York University; on "Operational Research" to the Engineering Institute of Canada and to the Management of the Enterprise seminar, School of Business; on "Value in Science" in the series on The Communication of Values at the Centre for Culture and Technology; on "Operational Research in Canada" to the Operational Research Society (United Kingdom); on "The Nature of Operational Research" at the Royal Military College in Kingston; on "Heavenly Clockwork" to the Canadian Society for the Study in the History and Philosophy of Science in Toronto; on "New Light on the Early History of Operational Research" to the Canadian Operational Research Society, Toronto Section; on "A Model to Determine Equitable Freight Rates for Non-Carload Traffic" (co-author) to the Canadian Operational Research Society National meeting in Toronto.
- Professor J. H. ACLAND, on "Architecture Today in Canada" in the Centennial Lecture series, Studies in Canadian Art, at the National Gallery, Ottawa; on "A Sense of Place" at the

- School of Architecture, Tucson, and to the Tucson Chapter of the American Institute of Architects.
- Professor A. AHMAD, on "An Eighteenth-Century Theory of the Caliphate" to the 28th International Congress of Orientalists, Ann Arbor, Mich.; on "Religion and Ideology in Pakistan" to the Department of Religion, University of Syracuse; on "Islam and Democracy in the Indo-Pakistan Sub-continent" and on "Pakistan and Islam" at the University of Minnesota.
- Dr. H. E. ALDRIDGE, on "Angiographic and Hemodynamic Correlation of the Ischemic Heart" to the Royal College of Physicians and Surgeons of Canada.
- Professor A. B. ALLAN, on "The Influence of Precombustion Reactions on Engine Knock" to the 17th Canadian Chemical Engineering conference in Niagara Falls.
- Professor B. M. ALLAN, on "Crisis Intervention" to a one-day institute sponsored by the Ontario Association of Professional Social Workers.
- Dean A. D. ALLEN, on "Nitrogen Complexes of Ruthenium and Related Elements" at Stanford University and at XICCC, Japan; on "Compounds of the Transition Metals containing N_2 " at McMaster University; on "Nitrogen Complexes of the Transition Metals" at Dupont Company, Wilmington; on "Transition Metals Nitrogen Compounds: A Progress Report" to the C.I.C. conference in Vancouver.
- Dr. W. E. C. ALLT, as a visiting lecturer to Good Samaritan Hospital, Dayton, Ohio.
- Dr. S. ALVI, on "Standardization Tests" at the Measurement-Evaluation Workshop of the Ontario Teachers' Federation and the Board of Education, Peterborough, Ont.
- Dr. A. L. AMACHER, on "Reticulo-Microgliomatosis: With Special Reference to Prognosis" (co-author) to the Royal College of Physicians and Surgeons of Canada.
- Professor A. AMSEL, on "Response Profiles in Within-Subject Experiments involving Discontinuous Negatively Correlated Reinforcement to One Stimulus and Continuous Reinforcement to Another" at Experimental Psychology Society meeting, University College, London; on "Mechanisms of Persistence: A Conditioning Model Approach" at the University, Hull, at the University of Exeter, and at the Institute of Psychiatry, Maudsley Hospital, England; on "Positive, Negative and Generalised Partial Reinforcement Effects in Within-Subject Experiments" at the Institute of Experimental Psychology, University of Oxford, and at the University of Sussex; on "Discontinuously Negatively Correlated Reinforcement" at a conference sponsored by Experimental Analysis of Behaviour Group, Institute of Psychiatry, Maudsley Hospital, London; on "Research on Frustration Theory at Toronto" at Birkbeck College and at the Department of Pharmacology, University College, University of London; on "Classical Conditioning Factors in Differential Reward Training Experiments: A Frustration-Theory Approach" at Nencki Institute of Experimental Biology, Warsaw, Poland; participant in Teach-in on Man, Psychological Society, University College, London; on "Fifteen Years of Frustration Theory" to Midland branch of the British Psychological Society, University of Birmingham; on "Evidence for a Medial Factor in Persistence" at the University of Texas, at Texas Christian-Southern Methodist University, and at Tulane University; on "Behavioural Habituation and a General Theory of Persistence" at the annual meetings of the Society of Experimental Psychologists, New York, and the Canadian Psychological Association, Calgary.
- Professor C. B. ANDERSON, on "Bleaching Characteristics of Sapwood and Heartwood Groundwoods of Jack Pine and Western Hemlock" (co-author) and on "Synergistic Effects of Chlorine Dioxide and Chlorine in the Later Stages of Bleaching" (co-author) at the annual meeting of TAPPI in Montreal.
- Professor G. M. ANDERSON, on "Silicate Species in Hydrothermal Solutions" (co-author) at a symposium on Experimental Methods in Petrology and Ore Genesis at the University of Western Ontario.
- Professor J. E. ANDERSON, as an invited participant in a symposium on Paleodemography, Diseases and Human Evolution, at the annual meeting of the American Anthropological Association in Washington, D.C.; on "Aggression in Man and his Community" at Holy Blossom Temple, Toronto; on "The Ancient History of Disease" to the Hamilton Academy of Medicine; on "The Study of Skeletal Populations" to the first National Conference of the Canadian Archaeological Association in Winnipeg; on "The Biology of Early Populations" at the scientific meeting of the medical staff of the Wellesley Hospital, Toronto; on "Recent Trends in Physical Anthropology" at Trent University; on "The Relationship of Anthropology to Growth and Development" as luncheon speaker at the annual meeting of the New York State Society of Oral Surgeons in Buffalo.
- Professor D. G. ANDREWS, on "Development of a Sensitive Gamma Counter Direct-Reading in Flux and Dose Rate" (co-author) to the Joint ANS-CNA annual conference, Toronto.
- Dr. J. H. M. ANDREWS, on "The Threat to Local Control of Education" at the Canadian School Trustees' Association workshop.
- Dr. C. S. ANGLIN, on "Management of Purulent Meningitis in Children" to the Canadian Paediatric Society in Toronto.
- Dr. R. A. ANWAR, on "The Biosynthesis of Uridine-Diphosphate and Acetylmuramic Acid" to the Central Ontario Branch of the Canadian Society of Microbiologists.
- Professor K. A. ARMSON, on "Is Ontario's Educational Program Fulfilling our Forestry Needs?" at the annual meeting of the Central Ontario Section of the Canadian Institute of Forestry in Sault Ste. Marie; on "The Forest Fertilization Trials in Progress in Northeastern Ontario" to the Forest Management Conference of the Canadian Pulp and Paper Association at Kirkland Lake.

- Professor J. B. ARMSTRONG, on "Perspectives of Overweight and Other Factors related to Cardiovascular Disease" to the Canadian Public Health Association, Ottawa.
- Professor R. L. ARMSTRONG, on "Lattice Dynamics and Nuclear Quadrupole Resonance" at the University of Toledo; on "Nuclear Quadrupole Resonance Study of K_2PtCl_6 " to the American Physical Society, Chicago.
- Professor A. J. ARROWOOD, on "Lying, Listening, and Liking: Some Studies in Social Perception and Attraction" at the University of Western Ontario Psychology colloquium.
- Dr. M. ARSTIKAITIS, on "Ophthalmic Problems of the New Born" to a meeting of the medical staff, Hospital for Sick Children.
- Dr. N. ASPIN, on "Measurement of Regional Ventilation to Perfusion ratios with Xenon 135 and a Scintillation Camera" (co-author) and on "The Measurement of Intestinal Absorption of Copper using ^{64}Cu " to the Tripartite Meeting of the American Physical Society, the Canadian Association of Physicists and the Mexican Society of Physicists in Toronto; on "The Measurement of Regional Ventilation to Perfusion Ratio in Man using Xenon 133 and a Scintillation Camera" (co-author) to the Canadian Federation of Biological Societies, McGill University; on "The Distribution of Blood Flow in the Human Lung" to the Canadian Association of Physicists, Calgary; on "Measurement of Regional Ventilation and Blood Flow in the Lung using Xenon 133 and the Scintillation Camera" to the Society of Nuclear Medicine, St. Louis.
- Professor C. E. ATWOOD, on "Photoperiod and Abnormal Development in *Diprion similis* Htg" (co-author) to the annual meeting of the Entomological Society of Canada, Macdonald College, Quebec.
- Professor K. T. AUST, on "Mechanical Effects at Grain Boundaries" at the 14th Sagamore Army Materials Research conference, Raquette Lake, N.Y.; on "Intergranular Corrosion of Austenitic Stainless Steels" to the Ontario Chapter of the American Society for Metals, Toronto; on "Interfacial Hardening in Metals", a research seminar at McMaster University; on "Role of Vacancies and Vacancy-Solute Interactions in the Hardening of Metals" to the Delaware Chapter of the American Society for Metals, Wilmington; on "Recent Advances in the Study of Interfaces in Metals" to the Eastern New York chapter of the American Society for Metals, Schenectady.
- Dr. D. P. AUSUBEL, on "Cognitive and Motivational Factors in Cultural Deprivation" at the University of Alberta and at Michigan State University; on "A Mentalistic Conception of Meaning" at the University of Alberta and at the Charles Nott Foundation, Flint, Mich.; on "Is there a Discipline of Educational Psychology?" to Division B (Curriculum and Objectives) of the American Educational Research Association, Chicago; and to the Conference of Interns in the Educational Research Program, New York State Department of Education; on "Facilitating Meaningful Verbal Learning" at the Psychology colloquium, Hofstra University; on "Psychological Issues in Science Education" at the Educational colloquium, Cornell University.
- Dr. S. M. AVITAL, on "Language of Exposition and its Influence on Mathematics Learning" at the American Educational Research Association Conference; on "Application of the Taxonomy of Educational Objectives to Mathematics Learning" at an NCME meeting.
- Dr. A. A. AXELRAD, on "Quantitative Studies on Friend Leukemia Virus and its Interaction with the Host Cells" at St. Jude Children's Research Hospital, Memphis, Tenn.; on "Genetic Control of Susceptibility and Resistance to Friend Leukemia Virus" to the Canadian Cancer Conference, Honey Harbour.
- Professor N. P. BADENHUIZEN, on "New Techniques in Electron Microscopy" to Secondary School Science teachers; on "Advances in Biology" to the International Science Teachers' conference; on "The Electron Microscopy and Enzymology of Starch Formation" to the Technical University of Zürich; on "Electron Microscopy of Plant Cells" in the School of Hygiene; on "The Biogenesis of Starch Granules" to the annual Starch Round Table at Lake Ozark, Mo., and to the Biology group in Queen's University.
- Professor M. Q. BAIG, on "Sarhindi's Critique on Ibn 'Arabi's Monism" at the twenty-eighth International Congress of Orientalists at Ann Arbor; on "Shaykh Ahmad Sarhindi at the Mughal Court" at the annual meeting of the American Oriental Society at the University of California, Berkeley.
- Dr. W. D. BAINES, on "Engineering Aspects of Air Pollution Problems" to the Dynamic Meteorology seminar at the Cavendish Laboratory, University of Cambridge; on "Flow of Stratified and Homogeneous Fluids through Curved Screens" to the Applied Mathematics seminar at the University of Oxford; on "Fluid Flow Problems in the Pulp and Paper Industry" to the Fluid Mechanics seminar at the Engineering Department, University of Cambridge; on "Current Fluid Mechanics Research at the University of Toronto" to the Mechanical Engineering seminar at the Institute of Science and Technology, University of Manchester; on "Turbulent Convective Heating of Horizontal Fluid Layers" at l'Institut de Mécanique Statistique de la Turbulence, Université d'Aix-Marseille; on "Evaporation from Porous Media" to the Fluid Dynamics seminar at the Department of Applied Mathematics and Theoretical Physics, University of Cambridge.
- Dr. R. J. BAIRD, on "A Practical Approach to Mechanical Support of the Circulation" at the colloquium on Assisted Circulation, Düsseldorf; and to the International Cardiovascular Society in Vienna; on "The Physiological Considerations in Myocardial Revascularization" to the Canadian Medical Association; on "Assisted Circulation" to the Ontario Medical Association.
- Professor J. J. BALATINECZ, on "Tracheid Development and Wood Quality in Larch Seedlings

- under Controlled Environment" (co-author) at the Lake States Tree Improvement Conference, Madison, Wis.; on "The Mechanisms of Earlywood-Latewood Differentiation in *Larix decidua*" (co-author) to the 4th Forest Biology Conference sponsored by TAPPI.
- Professor K. G. BALMAIN, on "Antenna in Plasma" at the International Electronics conference, Toronto; on "RF Probe Admittance in the Ionosphere: Theory and Experiment" to the NATO Advanced Study Institute on Plasma Waves in Space in the Laboratory, Røros, Norway.
- Mr. P. BANDYOPADHYAY, on "A Few Remarks on Viśvanātha Kaviṛāja's Treatment of *Lakṣaṇa*" at the twenty-eighth International Congress of Orientalists, Ann Arbor; on "The Interpretation of Vāmana's *Kāvya-lāṅkāra-sūtras* V.2.4.5 and 26" at the 178th annual meeting of the American Oriental Society, Berkeley, Calif.
- Dr. H. O. BARBER, on "Postural Vertigo and Positional Nystagmus" to the American Academy of Ophthalmology and Otolaryngology.
- Dr. D. BARHAM, on "The System $V_2O_5-Cr_2O_3$ " (co-author) to the 66th annual convention of the Canadian Ceramic Society.
- Professor J. S. BARKER, on "The Paradox of Development: Reflections on a Study of Local Politics in Senegal" to the spring colloquium on Decision-Making and the Development Process in Africa of the African Studies Center, University of California, Los Angeles.
- Dr. H. J. M. BARNETT, on "Bilateral Carotid Occlusion - its Clinical and Radiological Aspects" and on "Arachnoiditis and Cauda Equina Syndromes as a Sequel to Thorotrast Myelography" (co-author) to the Royal College of Physicians and Surgeons of Canada; on "Post-Traumatic Syringomyelia" at the National Hospital, Queen Square, London; on "Progressive Cystic Myelopathy following Paraplegia and Brachial Neuropathies mistaken for Cervical Spondylosis" to the Western Federation of Neurological Science Societies, San Diego; on "The Pathogenesis of Post-Traumatic Spinal Cord Cysts" at the University of Southern California.
- Professor R. G. BARRADAS, on "Electrochemistry of the Mercury/Electrolyte Interface" to the Electrochemical Society, Ontario-Quebec section, symposium on Interfacial Electrochemistry and Corrosion at Atomic Energy of Canada; on "Interfacial Electrochemistry" to the Department of Chemistry, University of Western Ontario; on "The Role of Organic Compounds in Interfacial Electrochemical Reduction Reactions" at the symposium on Oxidation-Reduction Processes at the University of Guelph; on "Physical Chemistry of Polarographic Streaming Maxima" to the fifty-first annual conference of the CRC at the University of British Columbia.
- Dr. R. D. BARRON, on "The Role of the Federal and Provincial Emergency Health Services" and on "The Role and Development of the Advanced Treatment Centre" at the Emergency Health Services Institute, Barrie, Ont.
- Dr. H. J. BARTON, on "Simultaneous Heat and Mass Transfer through Combined Forced and Free Convection" (co-author) at the seventeenth Canadian Chemical Engineering Conference in Niagara Falls.
- Dr. P. K. BASU, on "Studies on Mechanisms of Corneal Graft Reactions using Superficial Systems" to the second International Corneo-Plastic conference, London, England.
- Reverend G. G. BAUM, on "Democracy and Political Modernity" at the sixteenth convention of the German Sociological Association in Frankfurt a/Main; on "The Problem of God in Contemporary Catholic Theology" (the Tipple Lectures) and on "The Changing Understanding of Man in the Catholic Church" at Drew University, Madison, N.J.
- Dr. R. BAUMAL, on "Characteristics of the Rheumatoid Biologically Active Factor" to the Toronto Society for Clinical Research; on "Forssman Antibody as an Inhibitor of Anaphylactic Histamine" to the International Congress of Allergology, Montreal; on "Mechanism of Histamine Release from Guinea Pig Lung by Antibody to γ -globulin" to the Canadian Society for Clinical Investigation.
- Professor I. F. G. BAXTER, visiting lectures at the universities of Uppsala, Stockholm, Amsterdam, Cologne, Göttingen, Nancy and Rennes, and as NATO Professor at the University of Louvain, Belgium.
- Professor R. M. BAXTER, on "Where the Profession is going", as a Centennial Speaker at the Canadian Conference of Pharmaceutical Faculties; on "Pharmaceutical Education for Professional Practice - Changing Objectives" at the 20th Anniversary Program of the Canadian Society of Hospital Pharmacists; on "Pharmaceutical Education - Past, Present and Future" at the official opening of the new College of Pharmacy, University of Saskatchewan; on "Biosynthesis of Ergot Alkaloids: Regulatory Factors; (i) Significance of the Effect of Amino Acid Analogues, and (ii) Significance of the Effect of Certain Compounds influencing Enzyme Induction and Energy Metabolism" to the Academy of Pharmaceutical Sciences, American Pharmaceutical Association section on Natural Products and Pharmacognosy, at Miami.
- Dr. F. A. BEALE, to the Urological X-Ray seminar, College of Medicine, University of Cincinnati.
- Professor F. W. BEALES, on "Limestones and Ore-bodies" to the Geology Department, Imperial College/Royal School of Mines; on "Sedimentary Basin Evolution" to the Geology Departments, Cambridge and Oxford Universities.
- Professor R. C. BEALS, on "Total Involvement Organizations" to the Upper New York State Sociological and Anthropological Society meetings; on "The Catholic Hierarchy and

- Catholic Action in Mexico" to the annual meeting of the Canadian Sociology and Anthropology Association in Calgary.
- Dr. J. L. M. BEAN, on "Results of Surgical Treatment of Carcinoma of the Cervix" (co-author) to the Society of Obstetricians and Gynaecologists of Canada, Ste. Adèle.
- Dr. D. S. BEANLANDS, on "Complications of Myocardial Infarction" to the County Medical Society, Peterborough; on "Complications of Acute Myocardial Infarction" to the Medical Alumni Association, University of Toronto; on "Demand Pacemakers" to the section on Cardiology, Academy of Medicine.
- Reverend F. W. BEARE, on "Concerning Jesus of Nazareth: the State of the Tradition in the Gospel according to St. Matthew" to the Society of Biblical Literature and Exegesis in New York.
- Dr. G. H. BEATON, on "Recent Advances in Nutritional Biochemistry and Metabolism Pertinent to Oral Biology and Pathology" at the Massachusetts Institute of Technology; on "Some Reflections on Vitamins and Food Toxicities" to the Canadian Institute of Food Technologists at Toronto; on "Iron Deficiency in Canada" to the graduate students and staff at the University of British Columbia; on "Iron Requirements for Menstruating Women" at the American Institute of Clinical Nutrition meeting, Atlantic City; on "Erythrocyte Transaminase Activity: A Parameter of Vitamin B₆ Nutritional Status?", the Borden Award address at the Canadian Federation of Biological Societies meeting, Kingston.
- Professor C. M. BECK, on "Beyond a Purely Analytic Conception of Philosophy" to an Educational Foundations staff-student seminar; on "The Question of Knowledge in Curriculum Inquiry" to the AERA annual meeting; on "Knowing That, Knowing How To, Knowing To, and Knowing How" at the Philosophy of Education Society annual meeting, Santa Monica.
- Dr. P. F. BEIRNE, on "Diagnostic Uses of Ultra Sound in Obstetrics and Gynaecology" to the Ontario Medical Association.
- Dr. R. J-P. BELCOURT, on "Recent Developments in the Field of Viral Vaccines" at the annual meeting of the Health Directors of the Province of Manitoba.
- Professor N. W. BELL, on "Models for the Evaluation of a Rural Community Mental Health Program" (co-author) at the Western Regional meeting of the American Psychiatric Association in Los Angeles.
- Dr. R. D. BELL, on "Hearing Conservation in Industry" to the Ontario Speech and Hearing Association.
- Professor D. F. BELLAMY, on "Philosophical Elements in Social Welfare", the keynote address at the Regional Welfare Conference, Cornwall.
- Dr. CARL BEREITER, on "Children's Problems in the Coordination of Language and Reality" to the OISE conference on Preschool Education, Toronto; on "Basic Skills Underlying Reading" to the York Reading Conference; on "Supplementary Kindergarten Education for Disadvantaged Children" in the University of Colorado Faculty Convocation series.
- Dr. JACQUES BERGER, on "The Biology of Ciliate Protozoa inhabiting the Intestines of Sea Urchins" to the Joint Science Department, Claremont College, to the Zoology Department, UCLA, and to the Biology Departments at the University of Southern California and the University of California at Santa Barbara.
- Dr. D. E. BERSAGEL, on "The Current Status of Chemotherapeutic Agents in Malignancy" at the University of Ottawa.
- Professor D. E. BERLYNE, on "Nuevas Tendencias en la Teoría de la Motivación" and on "El Pensamiento Dirigido" at University of Veracruz, Xalapa, Mexico; on "American and European Psychology" at American Psychological Association annual meeting, Washington; on "The Development of the Concept of Attention in Psychology" at a conference on Attention as a Neuro-physiological Concept at National Physical Laboratory, Teddington, England; on "Arousal, Reward and Learning" at New York Academy of Sciences conference on Experimental Approaches to the Study of Emotional Behavior, American Museum of Natural History; on "Arousal and Reinforcement" at the Institute of Animal Behavior, Rutgers University, at the University of Wisconsin, and at Syracuse University; on "Curiosity and Learning" at the University of Wisconsin, at the University of Waterloo, at the Institute for Juvenile Research, Chicago, and at Syracuse University; on "Determinants of Subjective Novelty" at Simon Fraser University; on "Pre-questioning, Curiosity and Verbal Learning" at the University of Chicago and at the State University of New York at Albany; on "Reward-Value of Indifferent Stimulation" at the Institute of Animal Behavior, Rutgers; on "The Train of Thought" at Hofstra University.
- Mr. A. BERNDL, on "Design and Construction of the Lake Dufault Treatment Plant" to the conference of Metallurgists of the Canadian Institute of Mining and Metallurgy at Queen's University.
- Professor A. P. BERNHART, on "Aspects of City Planning Relative to Religion and Architecture" to the International Congress on Religion, Architecture and City Planning in New York; on "Environmental Pollution Control" at Kyoto University.
- Professor B. BERNHOLTZ, on "An Introduction to the Theory of Structural Inference" and on "Applications of Structural Inference" at Stanford University; on "An Integral Equation Approach to Second Variation Techniques for Optimal Control Problems" (co-author) at the Conference on Optimization, University of Keele, Staffs.
- Dr. E. G. BERTRAM, on "Cytologic and Cytogenetic Aspects of the X Chromosome of Man" (co-author) to the third International Congress of Cytologists, Rio de Janeiro.

- Dr. E. W. R. BEST, on "Some Questions concerning Local Public Health Services in Ontario" to the annual meeting of the Ontario Health Units Association at Toronto.
- Professor W. G. BIGELOW, on "Aortic Valve Replacement" to the American College of Surgeons; on "Special Problems in Cardiac Surgery" on a TV panel of the American College of Surgeons, and at Broussais Hospital, Paris.
- Professor P. B. BILANIUK, on "Celibacy and Eastern Tradition" at a symposium on Clerical Celibacy at Notre Dame University; on "The Eastern Christian View of the Priesthood" at a symposium at the University of Chicago; on "His Beatitude Josyf Cardinal Slipyj as a Theologian and Organizer of the Theological Schools and Research" at the session of the Shevchenko Scientific Society held in honour of the Cardinal in Toronto; on "The Christian Concept of Love" to the Ukrainian Club, University of Western Ontario; on "The Mystery of the Future" in the Thomas More Adult Education series in Montreal.
- Professor P. P. BIRINGER, on "Unstable Oscillations of Magnetic Triplers" (co-author) to the Intermag Conference in Washington, D.C.
- Dr. C. T. BISSELL, on "Canada, the Problem of Unity," a Thursday Morning Talk in aid of the Mount Auburn Hospital, Boston; on "The Humorist as Social Critic" in the Department of English lecture series, State University of New York at Albany; on "Canadian-American Literary Relations" at Yale University.
- Reverend E. C. BLACKMAN, on "New Interpretations of the Parables of Jesus" to the meetings of the Canadian Society for Biblical Studies.
- Professor FAY BLOSTEIN, on "The School Library Program" to school librarians at the Ottawa Valley District's Professional Development Day, Renfrew.
- Professor HANS BLUMENFELD, on "Metropolitan Planning" to the chapters of the German Academy of City and Regional Planning at Hanover and Hamburg and at the Technical University of The Middle East, Ankara.
- Dr. W. P. BOBECHKO, on "Immunological Reactions of Articular Cartilage" to the Canadian Orthopaedic Research Society.
- Professor D. R. BOHNEN, on "Structures and Function of Modern Health Complex" to Wisconsin Surgical Society; on "Intestinal Obstruction" to the Royal College of Surgeons.
- Dr. R. BORTH, on "Newer Developments in Gonadotropin Assay" to the Ontario Medical Association.
- Professor J. D. BOSSENS, on "The Effect of the Carter Proposals and of Alternative Proposals on Stock Prices" to the Fall Conference of the Canadian Tax Foundation, Montreal; on "Measuring the Effect of Tax Reforms on Asset Prices" at the annual meeting of the Econometric Society in Washington; on "The Incidence of Tax Changes resulting from Tax Reform" at a faculty seminar at Queen's University; on "The Automated Stock Exchange" at the University of Toronto's Financial Market conference; on "Measuring the Impact of Tax Reforms on Aggregate Revenues" and on "The Effects on Stock Prices of Changes in Tax Structure" to faculty and graduate students in the University of Chicago's Department of Economics.
- Professor P. I. P. BOULTON, on "Instruction in Computer Technology and Programming," to the Toronto section of the Institute of Electrical and Electronic Engineers.
- Mr. D. BOURNE, on "Laminar and Turbulent Flow in Eccentric Annuli" (co-author) at the seventeenth Canadian Chemical Engineering conference in Niagara Falls.
- Professor L. S. BOURNE, on "Urban Renewal and Urban Redevelopment: Concepts and Policies" to the Department of Geography, University of Victoria; on "Support of Research in the Social Sciences in Geography in Canadian Universities" to the Macdonald Commission at the University of Toronto.
- Dr. R. K. BOYD, on "High Resolution Infrared Spectroscopy of Transient Species produced by Flash Photolysis" (co-author) to the 8th Informal Conference on Photochemistry at l'Université d'Ottawa.
- Professor L. E. BOYLE, on "The Place of Clerical Celibacy in the Life of the Church: Gregory VII to Clement V" at the forty-eighth annual meeting of the American Catholic Historical Association in Toronto.
- Mr. R. BREGZIS, on "The Toronto University Library / MARC Pilot Project" to the Newcastle seminar on the Organization and Handling of Bibliographic Records by Computer, University of Newcastle-upon-Tyne; on "Library Networks of the Future" to the symposium on Data Processing in University Libraries at the Drexel Institute of Technology; on "Cataloguing in the Context of Automation" to the Institute on the Automation of Bibliographic Services, University of Maryland.
- Dr. WILLARD BREHAUT, on "Changing Patterns of Teacher Education" to the annual meeting of Prince Edward Island Teachers' Federation; on "Foreign Influences in Canadian Education: The English Influence" to the annual meeting of the Comparative and International Education Society of Canada.
- Professor D. BRETT-EVANS, on "Is Something Missing from 'Der gute Gerhard'?" at the Modern Language Association of America meetings in Chicago.
- Professor A. W. BREWER, on "Ozone Measurements" at the International Association of Meteorology and Atmospheric Physics, Lucerne, Switzerland.
- Dr. T. D. R. BRIANT, on "Hypophysectomy" to the Ontario Association of Speech and Audiology; on "Augmentation of the Vocal Cords" to the Ontario Medical Association.
- Dr. R. O. BRINKHURST, on "Worms and Germs" to the Public Health Officers of Ontario and

- to the Society of Biologists in Toronto; on "Aquatic Oligochaetes as Indicators of Pollution" at the University of Cleveland; on "Production Biology of Aquatic Oligochaeta" to the Canadian Committee on Freshwater Fisheries Research Conference in Ottawa; on "The Biology of Aquatic Oligochaeta" at the University of British Columbia; on "Changes in the Fauna of the Lower Great Lakes" at the University of New York, Buffalo.
- Dr. DAVID BRISON, on "Applied Psychology and Tactics for Field Research" to the Ontario Psychological Association at Windsor.
- Professor P. BROCK, on "The Polish Identity" to Canisius College, Buffalo; and to the Polish Institute of Arts and Sciences, New York.
- Dr. I. BRODER, on "Anaphylactic Histamine Release: Same or Different Receptors for Hologous and Heterologous Antibody" to the Canadian Society for Immunology.
- Professor A. G. BROOK, on "Reactions of Acylsilanes" at Ohio University; on "Rearrangements of Acylsilanes and Acylgermanes" at the University of Manitoba; on "Photochemistry of Acylsilanes" at the annual conference of the Chemical Institute of Canada, Vancouver.
- Professor A. F. BROWN, on "Consensus as a Function of Leadership Frequency and Style" at the Canadian Conference on Educational Research at the University of Manitoba.
- Dr. J. R. BROWN, on "The Effect of Exercise, Thermal and Dietary Stress on the Concentration of 1,1-bis(4-chlorophenyl)-2,2,2, trichloroethane (DDT) in Rats" (co-author) to the Canadian Association for Research in Toxicology, Montreal; on "Some Problems in Pesticide Analysis" (co-author) at the annual meeting of the American Industrial Association, Chicago.
- Dr. K. W. G. BROWN, on "Changing Role of Nurses in Coronary Care Units" to the American Heart Association, Washington; on "Heart Failure in Acute Myocardial Infarction", on "Heart Failure and Pulmonary Oedema in Acute Myocardial Infarction" and on "Shock in Acute Myocardial Infarction" to the American College of Cardiologists; on "Acute Myocardial Infarction" to the Saskatoon Division, CBA, Saskatoon; on "Treatment of Acute Myocardial Infarction" to the Porcupine Medical Society, Timmins; on "Nurses' Role in Coronary Unit" to the Canadian Cardiovascular Society; on "Organization of Coronary Unit" to the Moncton Medical Society; on "Changing Mortality in Acute Myocardial Infarction in Coronary Unit" to the Maritimes Cardiovascular Society, Amherst, N.S.; on "Power Failure in Acute Myocardial Infarction" to the New York State Heart Assembly conference on Coronary Care Units, Rochester, N.Y.
- Dr. M. H. BROWN, on "Recent Developments in Chronic Pulmonary Diseases" at the meeting of Physicians to the Homes for the Aged, Toronto.
- Dr. W. R. BRUCE, on "Purification of Erythropoietin from Anaemic Sheep Plasma by Gel-Filtration" (co-author) to the Canadian Federation of Biological Societies in Montreal; on "Studies of the Action of Chemotherapeutic Agents at the Cellular Level" to the Departments of Radiotherapy and Hematology, Washington University, St. Louis, and at Dalhousie University; on "Some Relations between Cell Biology and Radiotherapy" to the Memorial Sloan-Kettering Cancer Center, New York.
- Dr. D. P. BRYCE, on "Laryngotracheal Complications of Intubation and Tracheotomy" to the Division of Otolaryngology, University of Colorado; on "Laryngotracheal Injury" to the second British Academic Conference in Otolaryngology, Oxford; on "Increasing Problems of Laryngotracheal Injury" to the Cleveland Otolaryngological Society.
- Dr. BRUCE H. BUCHANAN, on "Cybernetics and Educational Research" at the Ontario Educational Research Council conference, Toronto.
- Professor J. M. BURKE, on "The Unity of the *Libro del Cavallero Cifar*" at the twenty-first University of Kentucky Foreign Language Conference at Lexington; on "Arabic and Mediaeval Studies; Sic et Non" to the University of Kansas Mediaeval Society.
- Mr. H. B. BURNHAM, on "Preparation of Silk Yarns in China in the Han Dynasty" at the meetings of Le Conseil de Direction du Centre International d'Etude des Textiles Anciens in Lyon.
- Professor G. BURNS, on "Participation of Electronically Excited Iodine Molecules in Atomic Recombination Reactions" to the joint meeting of the American Physical Society, la Sociedad Mexicana de Fisica and the Canadian Association of Physicists at Toronto; on "Steady State Assumption and the Dissociation of Br₂ in Shock Waves" at the sixth International Shock Tube Symposium, Freiburg a/Brau, West Germany; on "A Recombination of Br Atoms by Flash Photolysis over a Wide Temperature Range" at the Discussions of the Faraday Society at Toronto; on "Non-Equilibrium Effects in Recombination-Dissociation Reactions of Halogens from Shock Wave and Flash Photolysis Data" to the International Colloquium on Gas Dynamics of Explosions at the Free University of Brussels; on "Recent Advances in Studies of Fast Reactions in the Gas Phase" at the Research Laboratories, Imperial Oil Enterprises, Sarnia; on "The Relationship between Forward and Reverse Rate Constants to the Equilibrium Constant" at the Institute for Aerospace Studies; on "High Resolution Infrared Spectroscopy of Transients Species produced by Flash Photolysis" at 8th Informal Conference on Photochemistry at l'Université d'Ottawa; on "Dissociation and Two-Body Emission in Shock Heated Bromine" at the Chicago meeting of the American Chemical Society.
- Professor I. BURTON, on "The Scale and Timing of Investment in Community Water Supplies in Developing Countries" to World Health Organization Seminar on Community Water Supplies in Geneva; on "The New Environmentalism" and on "The Quantitative Revolution

- and After" to the Department of Geography, McMaster University; on "Recent Research on Problems of Environmental Quality" at the University of California, Berkeley.
- Mrs. D. M. BURWELL, on "Care of the Patient in Panic," accompanied by a video tape made by the nurses of the Clarke Institute, to a conference on Psychiatric Nursing conducted by the Registered Nurses' Association of Ontario; on "Helping Patients, Families, Nurses in Stressful Situations" to a conference on The Care of the Cardiac Patient conducted by the RNAO.
- Professor D. BUTLER, on "Physiology of the Salt Gland in Marine Birds" at the Department of Physiology, University of Nice.
- Professor J. A. BUZACOTT, on "Improving Production System Reliability" to the Toronto section, Canadian Operational Research Society.
- Professor D. R. CAMPBELL, on "Canadian Agricultural Policy" at a seminar at Purdue University; on "An Appraisal of Canadian Agricultural Policy" at a seminar at the University of Guelph.
- Mr. GERALD CAPLAN, on "Some Problems of Education in Developing Countries" at a seminar on International Education, University of Western Ontario; on "Rhodesia: the Politics of Race" in the World Affairs Course, Atkinson College, York University.
- Professor J. M. S. CARELESS, on "The Sociable Side of Confederation" to the American Association for State and Local History; on "Metropolitanism and the Atlantic Provinces" at the Centennial seminar in St. John's, Nfld.; on "George Brown and Bow Park" in Brantford, Ont.; on "Toronto's First Hundred Years" to the Toronto Area Research Committee; a Centennial Lecture at Prince of Wales College.
- Dr. HELEN M. CARPENTER, on "The Needs of Mothers and their Babies in Post Partum Period" at a conference on Maternal and Child Care sponsored by the Ontario Hospital Association, the Ontario Medical Association, the Ontario Public Health Association, and the Registered Nurses' Association of Ontario.
- Professor W. P. CARSTENS, on "The Social and Economic Implications of Reserve Systems" (3 lectures), to the Summer Institute on Canadian Society, at the University of Calgary.
- Professor C. E. CHAFFEY, on "Rheology of Dilute Suspensions" at the Department of Chemistry, Queen's University; on "Rheological Behaviour of a Dilute Emulsion" (co-author) and on "Particle Behaviour in Shear and Electric Fields, V: Effect on Suspension Viscosity" (co-author) at the sixty-third National Meeting of the A.I.Ch.E. in St. Louis.
- Mr. V. G. CHANT, on "Time Suboptimal Control of the Gas Absorber" (co-author) at the seventeenth Canadian Chemical Engineering conference in Niagara Falls.
- Dr. M. E. CHARLES, on "The Use of Heavy Media in the Pipeline Transport of Particulate Solids" at the International Symposium on Solid-Liquid Flow in Pipes, University of Pennsylvania.
- Professor J. J. CHEW, on "Honorifics in Japanese as a Collection of Systems" to the twenty-first University of Kentucky Foreign Language conference; on "The Subject in the Deep Structures of English and Japanese" to the summer linguistic meeting of the Committee on Institutional Cooperation at the University of Michigan.
- Professor V. S. CHITRE, on "A Dynamic Programming Approach to Transactions and Precautionary Demand for Money" to an economics seminar at the Indian Statistical Institute, New Delhi.
- Professor N. K. CHOUDHRY, on "The Specification of an Econometric Model of Canada" at the Department of Economics Seminar, University of Pittsburgh; on "The U.S. Demand for Non-alcoholic Beverages 1930-65" at the European meetings of the Econometric Society at Bonn; on "Econometric Model Building and Estimation - Experiences with the Toronto Econometric Forecasting Model of Canada" at the Department of Economics seminar, University of New Brunswick; on "The Toronto Econometric Forecasting Model - Causal Structure and Preliminary Results" at the Department of Economics seminar, Simon Fraser University; on "A Postwar Econometric Model of India" at the Far Eastern meetings of the Econometric Society, Tokyo.
- Professor C. S. CHURCHER, on "Pleistocene Mammals of the Canadian Plains" to the Society of Vertebrate Palaeontologists at Yale University.
- Dr. STACY CHURCHILL, on "Information: Its Storage, Retrieval and Management" to a seminar on Professional Development held by the Association for Computing Machinery in Detroit; on "Planning for Educational Research in Ontario Regional Data Centres" at the AEDS annual convention, Fort Worth.
- Mr. P. M. CHURCHLAND, on "Mental States, Functional States, and the Problem of Other Minds" at Oberlin College; on "The Mental States of Others" at Glendon College, York University.
- Professor G. CIAMAGA, on "The Use of Sequencers in Electronic Music" to the Convegno internazionale dei Centri sperimentali di musica elettronica, Florence; on "Electronic Music" to the International Congress of Organists, Toronto; on "Computer Control of Sound Apparatus" (co-author) to the thirty-third Convention of the Audio Engineering Society, New York.
- Professor B. CINADER, on "Prospects and Perspectives in Immunotherapy" to the Clinical Cancer Research conference at Lake Couchiching; on "The Place of Immunology in a Modern Medical School" at the University of Western Ontario; on "Commitment of Antibody Forming Cells through Receptor-Site" to l'Institut Pasteur; on "The Role of Paris in the

Development of Medical Research" to the Town Council of Paris; on "Immunological Consequences of Tolerance - A Complement Defect" to the University of Wisconsin Immunogenetics Seminar; on "Antibodies to Enzymes" to the Department of Physiological Chemistry, University of Wisconsin; on "Tolerance as a Regulating Mechanism" to St. Mary's Hospital Medical School, University of London; on "Functional and Genetic Analysis of Antibody-forming Cell Populations" to the University Hospital, University of Alberta; on "Tumour Immunology" at the University of Alberta; on "Tolerance Regulation" to the Paediatric Ward, University Hospital, University of Alberta.

Professor E. G. CLARKE, the presidential address to the annual meeting of the Canadian Society of Biblical Studies.

Dr. W. T. W. CLARKE, on "Renal Homeostasis" to the Royal College of Physicians and Surgeons of Canada; on "Diabetes-Management with Diet, Insulin or Drugs" and on "Coping with the Drug Deluge" to the twelfth annual Scientific Assembly of the College of General Practice of Canada in Mexico City; on "The Kidneys in Relation to Diabetes" to the Toronto District branch of the Canadian Diabetic Association; on "Serum Enzymes in Diagnosis" to the Albany Medical College.

Professor M. J. CLEMENT, on "Novae and Supernovae" to the Toronto Centre of the Royal Astronomical Society of Canada.

Professor D. J. CLOUGH, on "Benefit-Cost Analysis of Flood Control and Water Conservation Programs in Ontario" to the Toronto Hydrology Group at the owrc Laboratories; on "A Simulation Model for Manpower Planning in Canada" to a research seminar at oise; on "Measures of Value in Benefit-Cost Studies" at a seminar at the Centre for Engineering and Management Systems Studies, University of Waterloo; on "Optimal Waste Treatment and Pollution Abatement Benefits on a Closed River System" to the NATO conference on Applications of Mathematical Programming Techniques in Cambridge, England.

Dr. D. B. COATES, on "The Estimation of Illness Prevalence in the Community" to the Royal College of Physicians and Surgeons of Canada.

Dr. R. COBBOLD, on "The Effects of Substrate in M.O.S. Transistor Performance" at the Materials Research Institute, McMaster University.

Dr. S. L. COHEN, on "Serial Urinary Oestrogen Assays in the Management of the Diabetic Pregnancy" (co-author) to the sixth World Conference on Fertility and Sterility, Tel Aviv, and to the Society of Obstetricians and Gynaecologists of Canada, Ste. Adèle.

Dr. R. F. COLAPINTO, an address to the Royal College of Physicians and Surgeons of Canada.

Professor J. W. COLE, on "New Directions for High School Latin" to the Classics Teachers of District 7 of the OSSTF at Toronto.

Dr. C. COLLINS-WILLIAMS, addresses to the Canadian Paediatric Society, Toronto, to the Ontario Medical Association, to the Canadian Paediatric Society, Saskatoon, to the American College of Allergists, Kansas City, and to the American Academy of Pediatrics, Washington.

Professor D. J. CONACHER, on "Prometheus Rebound", 30-minute talk on *Ideas* programme, CBC National Radio Network; on "Profane Variations on a Tragic Theme" to the Graduate Classics Club, University of Pennsylvania.

Dr. P. E. CONEN, on "Clonal Evolution of Karyotype in Leukaemia" (co-author) to the Canadian Federation of Biological Societies in Montreal; on "Problems in Myogenesis Terminology in Electron Microscopy" to the Electron Microscopy Society of America in Chicago; on "Chromosome Patterns and Numbers in Leukaemias and Other Neoplasms" to the Clinical Conference of the Ontario Cancer Treatment and Research Foundation at Lake Couchiching; on "Familial Nephrotic Syndrome" (co-author) to the American Society of Nephrologists at Los Angeles; on "The Chromosomal Abnormalities in Patients with Syndactyly" (co-author) to the American Society of Human Genetics in Toronto; on "Use of Thin Plastic-embedded Sections in Surgical Pathology" to the Pediatric Pathology Club at Chicago; on "Chromosomal Abnormalities in a Childhood Autopsy Population" (co-author) and on "The Effect of Post-Lathyrin Medial Scar" to the American Association of Pathologists and Bacteriologists in Chicago; on "Characterization of 'desquamated alveolar cells' (DAC) in Experimental Desquamative Interstitial Pneumonia (EDIP)" (co-author) to the International Academy of Pathology in Chicago; on "The Alveolar Macrophage" to the American Society for Experimental Pathology in Atlantic City; on "Juvenile Cerebral Lipidosis, a Disorder of Ganglioside Metabolism" (co-author) to the American Pediatric Society at Atlantic City; on "Chromosome Studies on Splenic Tissue" (co-author) to the Canadian Society of Cell Biology at Kingston.

Professor A. W. CONN, on "The Paediatric Story" and on "Tracheotomy vs. Tube" to the Florida State Society of Anesthesiologists; on "Recent Advances in Paediatric Anaesthesia" at the Children's Memorial Hospital, Chicago; on "Complications during Induction", on "Use of Halothane in the Paediatric Patient," on "Clinical Use of Relaxants in Infants and Children" and on "Progress in Anaesthesia in Canada" to the sixth Clinical Conference in Paediatric Anaesthesia at the Children's Hospital in Los Angeles; on "Recent Advances in Paediatric Anaesthesia" at McGill University; on "Inhalation Therapy in Paediatrics" at the University of Tennessee; on "Role of the Anaesthetist in Paediatric Intensive Care" at the Quebec division of the Canadian Anaesthetists' Society; on "Anaesthetic Complications," on "Paediatric Intensive Care" and on "Recent Advances in Paediatric Anaesthesia" at Columbia University Medical Center; on "Anaesthesia Management of the Neonate"

- to the Department of Anaesthesia, Indiana University; on "Fluid and Electrolyte Balance in Paediatric Anaesthesia" and on "Complications in the Postoperative Period" to the Department of Anaesthesia, University of Manitoba.
- Dr. B. A. COOKSON, on "Catatonic Illness" to the Royal College of Physicians and Surgeons of Canada; on "Mood and Menses" to the Academy of Medicine of Toronto.
- Dr. P. D. COOPER, on "Effect of Enzymes on Isolated Organs" at le Centre National de la Recherche Scientifique, Paris.
- Dr. G. E. CONNELL, on "The Structure of Immunoglobulins" at Queen's University.
- Professor C. D. COOK, on "Cyclic Azo Derivatives of Platinum" to the Chemical Society (London) symposium in Leeds.
- Dr. G. T. COOK, on "Renal Transplant Surgery" to the Academy of Medicine of Toronto.
- Professor B. M. CORRIGAN, on "Research Opportunities in Italian Renaissance Drama" to the Research Opportunities in Renaissance Drama conference, Modern Language Association of America.
- Professor H. S. M. COXETER, on "Finite Groups of Quaternions" at Trinity College, Dublin; on "The Abstract Group $G_{3,9,10}$ " at the University of St. Andrews; on "Regular Complex Polytopes" and on "Inverse Distance" at the Universities of Liverpool and Birmingham; on "The Product of Two Affine Reflections" to the London Mathematical Society; on "Transformations from the Geometric Standpoint" (5 lectures) at the University of California, Santa Barbara; on "The Problem of Apollonius" at a joint meeting of the Canadian Mathematical Congress and the Mathematical Association of America in Toronto; on "Loxodromic Sequences of Tangent Spheres" at the Universities of Western Ontario and Waterloo and at the Illinois Institute of Technology in Chicago; on "Reflections on Reflections" at the annual meeting of the Pittsburgh Diffraction conference; on "Geometry of Time and Space" and on "Equiaffinities" at Southern Illinois University; on "Affinely Regular Polygons" at Ohio State University; on "A Plea for Affine Geometry in the School Curriculum" at the annual meeting of the National Council of Teachers of Mathematics in Philadelphia.
- Professor G. B. CRAIG, on "Deformation of Zirconium-Oxygen Polycrystalline Alloys" at the conference of Metallurgists in Kingston.
- Dr. D. R. CRAPPER, on "Neurofibrillary Tangles and Altered Electrical Activity of the Brain" to the Royal College of Physicians and Surgeons of Canada; on "Dementia, an Experimental Approach" to McMaster University, Department of Psychiatry.
- Dr. J. S. CRAWFORD, on "Testing of Vision in Pre-school and Schoolchildren" at the School of Hygiene, University of Toronto.
- Dr. J. S. CRAWFORD, on "A Practical Approach to the Treatment of the Arthritic Patient" to the Stratford General Hospital medical staff; on "Treatment of the Arthritic Patient" at St. Joseph's Hospital annual Clinical Day.
- Dr. J. F. CRAWLEY, on "Comparison between Eradication and Immunization in the Control of Poultry Diseases due to Viruses and Mycoplasma" at the eighteenth World Veterinary Congress in Paris.
- Professor C. D. CREELMAN, on "Sequential Dependence in Signal Detection and Parameter Estimation by Sequential Tracking (PEST)" (co-author) at the Acoustical Society of America meeting, Miami; on "On-Line Psychoacoustic Experimentation" at Digital Equipment Users' Society symposium, Ottawa.
- Mr. D. A. CRERAR, on "Silicate Species in Hydrothermal Solutions" (co-author) at a symposium on Experimental Methods in Petrology and Ore Genesis at the University of Western Ontario.
- Professor J. H. G. CRISPO, on "Human Adjustment to Industrial Conversion: A Canadian Experiment" to the First World Congress of the International Industrial Relations Association in Geneva; on "A Study of Union-Management Relations in the Construction Industry" (co-author) to the Centennial Convention of the Canadian Construction Association in Ottawa; on "The Domtar Industrial Conversion Plan" at a conference on Automation and the Individual of the Manitoba Government; on "The Implications of the Canadian Construction Association Centennial Labour Relations Inquiry for Manufacturers" to the annual meeting of the Canadian Manufacturers' Association in Halifax.
- Professor B. S. CRITTENDEN, on "From Description to Evaluation in Aesthetic Argument" at OISE; on "On Teaching" at Lakeshore Teachers' College; reply to Gordon Eastwood's paper, Philosophy of Education annual conference, Santa Monica.
- Dr. J. C. CROFT, on "Experience-based Learning in University Settings: Some Examples and Problems" at the national meeting of the Human Relations Commission of Canada.
- Dr. J. H. CROOKSTON, on "Identification of Normal and Abnormal Hemoglobins" to the Ontario Society of Medical Technologists; on "History of Blood Transfusion: The Laboratory Investigation of Transfusion Reactions" at the University of Washington; on "Adverse Reactions to Blood Transfusion" to the British Columbia Antibody Club; on "Drug-induced Blood Dyscrasias", on "Hemoglobinopathies" and on "Myeloproliferative Syndromes" to the Faculty of Medicine, Dalhousie University.
- Mrs. CROOKSTON, on "Compatibility Tests" and on "Cold Agglutinins" at a course sponsored by the University of Washington and the Blood Bank in Seattle.
- Dr. E. J. CROSSMAN, on "Changes in the Canadian Freshwater Fauna" to the meeting of the Canadian Committee on Freshwater Fisheries Research.
- Dr. D. CROZIER, on "Measurements of Pulmonary Diffusing Capacity in Normal Children and

- in Patients with Cystic Fibrosis" (co-author) to the Society for Paediatric Research, Atlantic City.
- Professor I. G. CSIZMADIA, on "A Theoretical Study on the Proton Affinity of Small Molecules", on "Quantum Mechanical Computations on Isomers of CH_3NO " and on "A Quantum Mechanical Study of the Structures of Carbanions Generated Alpha to S, SO and SO_2 " at the fifty-first annual conference of the Chemical Institute of Canada in Vancouver; on "Molecular Quantum Mechanics as a Practical Research Tool of Chemistry" to the McGill Chemical Society, the Hungarian Chemical Society, the University of Sheffield and the University of Göttingen.
- Dr. I. G. CUMMING, on "The Analysis and Synthesis of Continuous-time Stochastic Control Systems" at the Department of Aerospace Engineering, University of Colorado.
- Professor J. R. CUNNINGHAM, on "Use of the General Electric Time Sharing Computer System at the Ontario Cancer Institute" to the University of Wisconsin Medical Center, Department of Radiology; on "Calculation of Dosage in an Irregularly Shaped Beam" to the annual meeting of the Canadian Association of Physicists division of Medical and Biological Physics, Calgary.
- Mr. I. D. CURRIE, on "The Theory of Cultural Decay and Death: Sorokin and Kroeber" to the Canadian Sociology and Anthropology Association meetings; on "Images of the Professor and Interest in the Academic Profession" (co-author) at the Department of Sociology, University of Kansas.
- Professor L. CURRY, on "Covariance in Climatology" at the University of Kansas and at Michigan Inter-University Community of Mathematical Geographers; on "Geographical Dynamics and the Central Place Problem" to the Departments of Geography of the University of Michigan and Northwestern University, and to the National Science Foundation seminar on Quantitative Geography in Cincinnati; on "A Wave Statistics Model for Climatic Time Series" at a colloquium on Time Series Analysis, University of Kansas; on "The Statistical Information Content of Remotely Sensed Imagery" (co-author) to the Avionics and Natural Resources symposium of the Canadian Aeronautics and Space Institute.
- Professor A. J. DAKIN, on "Metropolitan Toronto Planning: Where the Action is" to the Ontario Landscape Contractors' Association annual conference.
- Professor J. H. DALES, on "Some Comments on International Trade Policy with Special Reference to Canada" at a seminar at Carleton University.
- Professor J. M. DANIELS, on "Nuclear Reactions with Oriented Target Nuclei" at Rice University.
- Professor J. M. M. DARTE, on "Wilm's Tumour and Neuroblastoma" to the Janeway Child Health Centre.
- Mr. E. M. DAVIDSON, on "Evaluation of Canadian Educational Credentials, Eastern Provinces" to the American Association of Collegiate Registrars and Admissions Officers in Philadelphia.
- Dr. J. W. DAVIDSON, addresses to the Royal College of Physicians and Surgeons of Canada, Toronto; the Canadian Association of Radiologists, Quebec City; the second International Congress on Lymphology, Miami; the Association of University Radiologists, Columbus, Ohio.
- Dr. R. E. G. DAVIES, on "The Social Effects of the Tax System" at the annual conference of the Canadian Tax Foundation, Montreal.
- Professor NATALIE Z. DAVIS, on "Bienfaisance, humanisme, hérésie - le cas de Lyon" to le Centre de Recherches d'histoire du Moyen-Age, Université de Paris; on "Grèves et querelles ouvrières à Lyon du 16^e siècle" to le Centre de Recherches sur la civilisation de l'Europe moderne, Université de Paris, and to the Société Historique, Archéologique et Littéraire de Lyon; on "Industrial Disputes and Violence in Sixteenth-Century France" to the History seminar of the University of California at Los Angeles.
- Professor E. J. DAVISON, on "A Computational Technique for finding Time Optimal Controls" at the Hawaii International Congress of System Sciences, University of Hawaii; on "The Stability of the n^{th} Order Nonlinear Time-Varying Differential Systems" to the Department of Electrical Engineering, McMaster University.
- Dr. H. I. DAY, on "A Curious Approach to Creativity" and on "Alcohol Deconditioning Research: Methodological Problems" to the annual meeting of the Ontario Psychological Association, Windsor; on "Association Value and Subjective Ratings of Interest in Visual Complexity" (co-author) at the American Educational Research Association convention, Chicago; on "The Necessary Conditions for Creativity" (co-author) at the annual meeting of the Canadian Council for Research in Education, Quebec; on "Preference: Interest or Pleasure?" to the annual meeting of the Canadian Psychological Association, Calgary.
- Professor W. G. DEAN, on "Changing Concepts in Thematic Cartography" at the annual meeting of the Ontario Division of the Canadian Association of Geographers at York University; on "The Economic Atlas of Ontario - Problems and Trends in Atlas-making" to the Department of Geography, University of Minnesota; on "The Ontario Atlas as a Research Programme" to the Pierce County Geographical Society, Minnesota.
- Professor J. M. DECKERS, on "Studies of Collisions using Supersonic Beams" at the conference on Chemical Accelerators, Boulder, Colorado, and at the University of California; on "High Intensity and High Energy Beams" as principal speaker at the Gordon Research Conference on Dynamics of Molecular Collisions.

- Professor J. H. DE LEEUW, on "Possible Uses of Small Angle Electron Scattering for Plasma Diagnostics" to the Graduate School of Aerospace Engineering, Cornell University, and to the Center for Fluid Dynamics at Brown University; on "Simultaneous Temperature and Density Measurements by an Electron Beam Luminescence Technique" to the symposium on Small Rocket Techniques at the COSPAR conference in Tokyo; on "Electron Beam Scattering in Weakly Ionized Plasmas" at the Department of Aerospace Engineering, Cornell University; on "Detonation-driven, Stable, Spherical Implosions for generating Plasmas at Extreme Temperatures and Pressures", the opening invited lecture at the International Colloquium on the Gasdynamics of Explosions, Brussels.
- Professor R. B. DE SOUSA, on "The Contradiction Eradicator" at the Canadian Philosophical Association meetings.
- Dr. G. A. DE VEBER, on "Current Status of Renal Transplantation" at St. Joseph's Hospital, Hamilton; on "Current Aspects of Renal Transplantation" at Orillia and District Medical Society, to Humber Memorial Hospital Medical Staff and to the Bracebridge and District Medical Society; on "Genito-Urinary Disorders, etc." to the Kellogg Foundation, Port Arthur; on "Management of End-stage Renal Disease" to the Academy of Medicine, Anesthesia section; on "Renal Failure, Conservative Management, Hemodialysis and Transplantation" to the Canadian Life Insurance Medical Officers' Association convention; on "Immunological Considerations in Kidney Transplantation" to the Ontario Antibody Club; on "Effects of Hemodialysis on Free Serum Thyroxine" to the European Dialysis and Transplantation Society, Dublin.
- Professor S. B. DEWAN, on "Thyristor Converter for Induction Heating" (co-author) at the Industry and General Applications Conference in Pittsburgh; on "Solid State Control of AC Motors" to the Department of Electrical Engineering, University of New Brunswick.
- Mr. E. J. DEWAR, on "Chlorine Exchange Resins" (co-author) at the seventeenth Canadian Chemical Engineering conference at Niagara Falls.
- Professor F. P. DEWAR, addresses to orthopaedic centres in Brisbane, Adelaide, Melbourne, Sydney and Perth, as Official Guest of the Australian Orthopaedic Association and New Zealand Orthopaedic Association.
- Professor A. J. DIAMOND, on "Graduate Work at the School of Architecture" at the University of Natal; on "Urban Engineering" to the Professional Institute of Engineers.
- Professor M. J. DIGNAM, on "Concerning the Vitreous Nature of certain Anodically Formed Oxide Films" at the fifty-first conference of the Chemical Institute of Canada at the University of British Columbia.
- Professor F. W. DOANE, on "The Importance of Electron Microscopy in Diagnostic Virology" to the Canadian Public Health Association.
- Professor A. R. DOBELL, on "The Proposed Tax Reforms: Over-all Effects upon Savings, Investment and the Balance of Payments" (co-author) to the Canadian Economics Association annual meeting in Calgary.
- Professor W. A. C. H. DOBSON, on "The Periodization of Classical Chinese" to the CIC Far Eastern Language Institute, University of Michigan; on "China and the World Conflict" in the United Nations Lecture Series, McGill University; on "A New Look at the Problems of the *Book of Songs*" at the twenty-seventh International Congress of Orientalists, Ann Arbor; on "The Origins of Chinese Poetry" at the twentieth annual meeting of the Association for Asian Studies in Philadelphia.
- Miss DORIS DOHRENWEND, on "Archaeology in China since 1949: the Yunnan Finds" to the Society for Oriental Studies, Toronto.
- Dr. C. E. DOLMAN, on "Twenty Years' Encounters with *Clostridium botulinum*" at the thirty-fifth annual Christmas meeting of the Laboratory section, Canadian Public Health Association, Toronto.
- Professor M. I. DOLPHIN, on "Leadership and Quality of Nursing Care" at the annual institute of the School of Nursing, Dalhousie University.
- Dr. W. L. DONOHUE, on "Problems in Paediatric Pathology" to the International Academy of Pathology in Chicago.
- Reverend R. B. DONOVAN, on "Spain and the Origin of Medieval Religious Drama" at the University of Rochester; on "Two Celebrated Centres of Medieval Liturgical Drama: Fleury and Ripoll" at the Catholic University of America.
- Dr. H. J. DONSKY, on "Tetracycline Fluorescence in Squamous Cell Carcinoma" to the thirteenth International Congress of Dermatology, Munich; on "Psoriasis" to Toronto Area Pharmacists.
- Professor J. E. DOOLEY, on "A Course in Computer Programming and Applications for Pharmacy Students" to the Canadian Conference of Pharmaceutical Faculties; on "Decision-making" to the Systems and Procedures Association.
- Professor J. E. DOVE, on "Computer Studies of Reaction Profiles in Gas Detonations" to the International Colloquium on Gas-dynamics organized by the International Academy of Astronautics at the Free University of Brussels; on "A Kinetic Study of the Oxidation of Hydrogen by Nitrous Oxide in Shock Waves" to the seventeenth Canadian Chemical Engineering conference, Niagara Falls.
- Dr. V. R. D'OYLEY, on "The Ontario Tests for Admission to College and University - Development of the Program and some Implications" at the convention of the Eastern Ontario Headmasters' Council, Smiths Falls, and to the Principals and Guidance Counsellors' fifth

- annual conference, London; on "Testing and Evaluation: The Role of orsz" at the Guelph Secondary School Teachers' Professional Development Day.
- Professor B. S. DRAKE, on "Back from Limbo - the Rediscovery of A. B. Johnson" to the Centennial conference on Alexander Bryan Johnson, Utica; on "Galileo's First Telescopes" to the Canadian Society for the Study of the History and Philosophy of Science.
- Mr. G. W. J. DRAKE, on "Cherubini's *Watercarrier* and the German Romantics" to a meeting of the Mid-west Chapter of the American Musicological Society in Chicago.
- Professor W. H. DRAY, on "Consequences in History" in the International Philosophical Year lecture series at Brockport, N.Y.; on "Importance in History" at Washington University and the University of Pittsburgh.
- Professor W. R. DRUCKER, on "Current Concepts of Shock" to Ohio chapter, American College of Surgeons; on "Evaluation of Elderly Patients for Emergency Surgery" (panel) and on "Pancreatitis" (cine clinic) to the Clinical Congress, American College of Surgeons; on "Time for Change in Medical Education" and on "Shock" to the Canadian College of General Practice; on "Role and Organization of a Comprehensive Trauma Treatment Service in a Medical Center Hospital" at the University of Vermont; on "The Development of Future Surgical Research Programs" to the Conference on Surgical Education, Winnipeg; on "Metabolic Basis for Tolerance to Hypovolemic Shock" at the University of Rochester; on "Need for Change in Medical Education" to Université Laval and to the Universities of Saskatchewan and Western Ontario; on "The Management of Hemorrhagic Shock" and on "Metabolic Definition of Irreversibility" to the University of Miami; on "Metabolic Alterations in Hemorrhagic Shock" to the Windsor Academy of Surgeons and Wellington County Medical Association; on "Metabolic Alterations in Hypovolemic Tolerant Animals" to the Society of University Surgeons; on "Hemorrhagic Shock" to the Hamilton Academy of Medicine; on "Intestinal Obstruction" to Southeastern Surgical Congress; on "Water and Salt Metabolism in Shock: Effect of Corticosteroids" at the University of Illinois; on "The Changing Philosophy of Medical Education" to the Ontario Medical Association; on "The Gospel of St. Flo" to Toronto General Hospital School of Nursing.
- Dr. S. DUBISKI, on "Changes in the Conformation of the Heavy Chains of Rabbit Immunoglobulin which depend on the Allotypic Specificity of the Light Chains" to the fifty-second annual meeting of the Federation of American Societies for Experimental Biology, Atlantic City.
- Professor G. R. DUNCAN, on "Bitter Principles of *Bryonia dioica* and *B. alba*" and on "Bitter Principles of *Brucea sumatrana*" at the Canadian conference of Pharmaceutical Research.
- Dr. I. B. R. DUNCAN, on "Development of Lincomycin Resistance by Staphylococci" to the seventh Interscience Conference on Antimicrobial Agents and Chemotherapy in Chicago; on "Comparative Studies of North American and European Strains of Echovirus type 30" to the Canadian Society of Microbiologists in Windsor.
- Mrs. BLANCHE DUNCANSON, on "The Essence of being Professional" at the Victoria Hospital School of Nursing, London, Ont.; on "The Role of the College of Nurses" to Directors of Schools of Nursing in Ontario.
- Dr. D. A. DUNHAM, on "Problems in the Analysis of a Threat-Appeasement System" at the University of Western Ontario.
- Professor A. J. DUNN, on "Fat Embolism" to the Sudbury Medical Society.
- Professor W. B. DUNPHY, on "The New Morality" at the University of Oklahoma.
- Dr. W. M. EAGLESON, on "Some Experimental Work in Bone Healing" to the Orthopedic section, Toronto Academy of Medicine.
- Professor HANS EICHNER, on "Thomas Mann und die Romantik" to the second Amherst conference on Modern German Literature, University of Massachusetts.
- Miss K. EMERY, on "Education in Chemistry at Scarborough College" (co-author), an Educational Television tape presented at the cic meeting in Vancouver.
- Dr. L. ENDRENYI, on "Quantitative Analysis of Overlapping Gaussian Peaks" at the American Chemical Society meeting in San Francisco.
- Dr. A. G. ERWIN, on "The Thorax" to the Canadian Association of Physiotherapists.
- Professor B. ETKIN, on "Dynamics of Flight Vehicles" at the University of Waterloo; on "Research on Satellite Dynamics at UTIAS" at U.S. Air Force Institute of Technology, Dayton, Ohio; on "Accomplishments of Amelia Earhart Scholarship Winners" to the Zonta Club, Toronto, on "Flight of Aircraft in Atmospheric Turbulence" at the University of Kansas, at Wichita State University and at the University of Washington.
- Professor D. D. EVANS, on "The Canadian Conscience and Vietnam" to the Canadian Institute for International Affairs; on "Moral Rules and Sexual Morality" to the Commission on Faith and Order, Canadian Council of Churches; on "The Language of Creeds" to the Committee on Christian Faith, United Church of Canada; on "Evidence for Theism?" to the Department of Philosophy, Elmhurst College, Ill.; on "Belief and Faith" to the Department of Religious Studies, University of Lancaster.
- Dr. G. T. EVANS, on "Analysis of Categorizing Behaviour" to the spring meeting of the Psychometric Society, University of North Carolina.
- Professor M. G. EVANS, on "Conceptual and Operational Problems in the Measurement of Job Satisfaction" at the Calgary meetings of the Association of Canadian Schools of Business.
- Dr. C. EZRIN, on "Peripheral Interaction of T-3 (Tri-iodothyronine) and T-4 in Oestrogen

- Treated Human Subjects" (co-author) at the Eastern Great Lakes chapter of the Society of Nuclear Medicine; on "The Electron Microscopy of the Crookes Hyaline Cell: A Study of the Fine Structure of the Human Adenohypophysis" (co-author) and on "The Thyroid in Cystinosis" to the Royal College of Physicians and Surgeons of Canada; on "The Effect of Drugs on the Gonadotrophs of the Pituitary" to the sixth International Congress on Fertility and Sterility in Tel Aviv.
- Professor E. L. FACKENHEIM, 3 seminars on Hegel's *Phenomenology of Spirit* and a public lecture on "Present Christian Celebrations of Secularity" at the Department of Philosophy, Marquette University; on "The Future of Hope," a Centennial symposium at the University of California, Santa Barbara; on "Philosophy and History" at the Department of Classics, Dalhousie University.
- Professor H. B. FAIRLEY, on "Ventilators" and on "Problems of Anaesthesia" to the fifty-ninth annual meeting of the Manitoba Medical Association; on "Physiology of Intermittent Positive Pressure Ventilation" and on "Complications of Prolonged Intubation and of Tracheostomy" to the Section of Anaesthesia of the Ontario Medical Association; on "Intensive Care" and on "Postoperative Respiratory Failure" to the Southern Medical Association, Miami; on "The Selection of a Mechanical Ventilator" and on "The Management of Crushing Injuries of the Chest" to the Department of Anaesthesia of the University of Miami; on "The Management of Patients with Respiratory Failure" to the Boston Respiratory Therapy conference; on "The Anesthesiologist in Acute Medicine" on a panel of the New York State Society of Anesthesiologists' twenty-fifth Postgraduate Assembly; on "Shock - Respiratory Homeostasis" at the meeting of the Royal College of Physicians and Surgeons of Canada; on "Laryngeal and Tracheal Complications of Prolonged Intermittent Positive Pressure Ventilation" to the Department of Anesthesiology, San Francisco Medical Center, University of California; on "Mechanics of Breathing," on "Diagnosis of Respiratory Failure," on "Management of Crushing Injuries of the Chest," on "The Selection of a Mechanical Ventilator" and on "The Central Venous Pressure Line," the Postgraduate Course in Anesthesiology, University of Utah; on "Problems in the Management of Respiratory Failure" to the Quebec Division of the Canadian Anaesthetists' Society; on "The Current Status of Hyperbaric Medicine" to the Department of Anaesthesia, Queen's University; on "The Management of Respiratory Failure" to the Oshawa Medical Society; on "Complications of Tracheotomy and Prolonged Endotracheal Intubation" at the annual meeting of the Canadian Anaesthetists' Society in Ottawa (chairman of panel).
- The Reverend E. R. FAIRWEATHER, on "Some Contributions of Philosophy to Theological Renewal" at the Congress on the Theology of the Renewal of the Church, University of Toronto; on "How the Word of God Creates and Sustains the Church" at the second meeting of the Anglican-Roman Catholic Joint Preparatory Commission, Taplow, England; on "Anglican-Roman Catholic Relations" at a meeting of Priests of the Roman Catholic Diocese of London and the Anglican Diocese of Huron in London, Ont.
- Professor A. M. FALLIS, on "Life Cycles and Interrelationships of Malaria Parasites" and on "Attraction and Feeding Behaviour of some Blood Sucking Flies in relation to Transmission of Parasites" to the Department of Microbiology, Université de Montréal; on "Black Flies and People - our Attraction to Each Other" at the University of Toronto.
- Dr. A. J. FARINA, on "Looking through the Crystal Ball" to the Northern Ontario Recreation Association conference; on "The Role of Labour in Federal Politics" to the Workers' Education Association.
- Dr. J. FARKASHIDY, on "Head Injury and Dizziness" to the Ontario Medical Association.
- Dr. H. FARKAS-HIMSLEY, on "Inhibition of Staphylococcal Penicillinase by Cloxacillin" and on "A Survey of Easter Island Staphylococci" to the thirty-fifth annual meeting of the Canadian Public Health Association at Toronto; on "Studies on the Activity of Vibriocin: a Bacteriocin from *Vibrio comma*" to the seventeenth annual meeting of the Canadian Society of Microbiologists at McMaster University and to the sixty-eighth annual meeting of the American Society of Microbiology at Detroit; on "Vibriocin: Bacteriocin from *Vibrio comma*, its Production, Appearance and Activity" and on "Mutation in Staphylococci and Phage Typability" to the Canadian Society of Microbiologists, Ontario branch; on "Isolation and Identification of *Pseudomonas pseudomallei*" to the seventeenth annual meeting of the Canadian Public Health Association and at the sixty-eighth annual meeting of the American Society of Microbiology; on "Classification and Base Ratio Determination in *Pseudomonas pseudomallei*" and on "Further Studies on Clinical Isolates of Penicillin-resistant Staphylococci" to the seventeenth annual meeting of the Canadian Society of Microbiologists at McMaster University; on "The Relationship of Clinical Isolates of Coagulase-negative Staphylococci to *Staphylococcus aureus*" to the seventeenth annual meeting of the Canadian Society of Microbiologists and at the thirty-fifth annual meeting of the Canadian Public Health Association.
- Professor R. M. FARQUHAR, on "Mass Spectrometry at the University of Toronto" to the mass spectrometer group in the Department of Physics, McMaster University.
- Professor J. L. FARRAR, on "Tracheid Development and Wood Quality in Larch Seedlings under Controlled Environment" (co-author) at the Lake States Tree Improvement conference, Madison, Wis.
- Dr. L. N. FARRELL, on "Animal Cell Strains as Substitutes for Primary Monkey Kidney

- Cultures in Testing Salk and Other Inactivated Vaccines for Persistent Viruses" at the tenth Congress of the Permanent Section of Microbiological Standardization, International Association of Microbiological Societies, in Prague.
- Professor J. J. FAWCETT, on "Stability and Phase Relations of the Intermediate Mg-Fe Chlorites" (co-author) and on "The Present Status of the Chlorite Group of Minerals" (co-author) at the symposium on Experimental Methods in Petrology and Ore Genesis at the University of Western Ontario; on "Chemistry of some Tertiary Flood Basalts from East Greenland" at the annual meeting of the Mineralogical Association of Canada, Vancouver.
- Professor R. A. FENN, on "Communist China" to the Armed Services Staff College, Toronto.
- Professor W. O. FENNEL, on "The Doctrine of God and the New Theology" to an ecumenical gathering of the clergy of the Diocese of Huron; on "The Meaning of 'Ecumenical' in the Context of a Theology of the World" at a national ecumenical conference sponsored by the Canadian Council of Churches; on "The Uses and Authority of a Creed" to the annual meeting of the United Church Committee on the Christian Faith; on "Religion, Faith and the Death of God" to the London Ministerial Association.
- Professor J. D. FERNIE, on "Measuring Astronomical Distances by Cepheid Variables" to the Ottawa Centre of the Royal Astronomical Society of Canada.
- Mr. R. J. FESSENDEN, on "An Evaluation of Manometric and Enzyme Assay Techniques as applied to Contrasting Ontario Forest Soils" (co-author) to the annual meeting of the American Society of Agronomy in Washington.
- Professor K. B. FEUER, on "*War and Peace* as a Political Novel" (a Bostock Memorial Lecture) at the University of British Columbia; on "The Writing of *War and Peace*" at McGill University; on "Moral Freedom and Aesthetic Determinism" at the University of Washington; on "Russian and West European Fiction" in the Department of Comparative Literature, University of Washington.
- Professor L. FEUER, on "The Socio-Psychological Transformation of Soviet Society" to the conference on Fifty Years of Communism in Russia at the Hoover Institution on War, Revolution and Peace, Stanford University; on "The Contemporary Intellectual" at Carleton College, Northfield, Minn.
- Mr. O. FIGUEIREDO, on "Laminar and Turbulent Flow in Eccentric Annuli" (co-author) at the seventeenth Canadian Chemical Engineering conference in Niagara Falls.
- Dr. J. M. FINLAY, on "Electron Microscopic Findings in Whipple's Disease" to the Royal College of Physicians and Surgeons of Canada.
- Professor D. C. FINLAYSON, on "Electrolyte Balance in Acute Medical and Surgical Emergencies" at Université Laval; on "Body Composition Alterations with Anaesthesia and Surgery," on "Pathophysiology, Diagnosis, and Management of Pulmonary Embolism," on "New Concepts in the Evaluation and Management of Shock," on "Use of Neuroleptanalgesia" and on "The Management of Intravenous Regional Block" at McKellar General Hospital, Fort William, Ont.
- Dr. J. D. L. FITZGERALD, on "Allergic Respiratory Disease" to the Institute of Allergy, Roosevelt Hospital, New York.
- Dr. P. J. FITZPATRICK, addresses to the Royal College of Physicians and Surgeons of Canada; Canadian Association of Radiologists, Quebec City.
- Professor S. N. FLENGAS, on "Theoretical Aspects of Heterogeneous Equilibria" to the Applied Chemistry lecture series at the National Research Council; on "Recent Advances in High Temperature Electrochemistry" to the Professional Staff Association, Sheridan Park, Ont.
- Dr. R. A. FLEURY, on "Characterization of Chromophoric Groups in Groundwood and Lignin Model Compounds by Reaction with Specific Reducing Agents" at the annual meeting of TAPPI in Montreal.
- Dr. G. E. FLOWER, on "Some Organizational Facts of Life" to the Ontario Association of School Business Officials; on "Un Bilan de la recherche pédagogique au Canada anglais" to l'Association internationale de Pédagogie expérimentale de langue française, Université de Sherbrooke; on "Evaluation of Teaching" to Toronto Vice-Principals' Liaison Group; on "Is Anybody Listening?" in the Humanities Lecture Series, Faculty of Engineering, McMaster University; on "Education in the 21st Century" to the Alberta Teachers' Association, Calgary District convention; on "Some Issues in County School Organization", an address on opening day of Education Week, Owen Sound; on "The Education Boom - or Bust?" to the School Inspectors' Association, Branch No. 8, CSAO; on "Some Personal Reflections on oise" at the OEA-OISE Leadership seminar; on "Some Leadership Facts of Life" and on "Teacher Education: Training and Retraining" to the June Conference of Manitoba School Inspectors and Superintendents.
- Professor P. J. FOLEY, on "Human Factors Engineering" at McGill University.
- Dr. N. FORBATH, on "Glucose Dynamics in Patients treated with Glucocorticoid Hormones" at the sixth Congress of International Diabetes Federation, Stockholm.
- Dr. P. G. FORBATH, on "Cardiac Research and the Role of the Ontario Heart Foundation" to the Nightingale School of Nursing, Toronto.
- Professor D. J. FORGIE, on "The Importance of Environmental Perception in Programs concerned with Development and Change in an Organization" to the Management of Improvement seminar given by the School of Business and the Division of Extension, University of Toronto.

- Dr. G. G. FORSTNER, on "Intestinal Surface Membrane" at Ohio State University.
- Mr. F. R. FOULKES, on "Hydrogen-Oxygen Ion Exchange Membrane Fuel Cells" (co-author) at the seventeenth Canadian Chemical Engineering conference in Niagara Falls.
- Professor M. FOWLER, on "Kondo Bound States in Superconductors" at the Bell Telephone Laboratories, New Jersey; on "Conditions for Bound States in a Superconductor with a Magnetic Impurity" to the Eastern Regional meeting of the Theoretical Physics division, Canadian Association of Physicists, Kingston.
- Dr. R. S. FOWLER, on "Use of the Digital Computer in Electrocardiographic Studies" to the Canadian Cardiovascular Society, Montreal.
- Dr. WILLIAM FOWLER, on "Dimensions of Early Reading" at the Technical Session of the annual conference of the Ontario Educational Research Council; on "Problems and Processes of Cognitive Stimulation in Early Childhood" (co-author) to the OISE conference on Preschool Education.
- Professor P. W. FOX, on "Regionalism and Confederation, 1867-1967" at the Centennial seminar of the Canadian Historical Association; on "The Changing Balance of Power in Canadian Federalism," a faculty-graduate seminar at Carleton University.
- Dr. W. M. FRANKS, on "Electromyography" to the Ontario Physiotherapy Association.
- Dr. D. H. FRAYN, on "The Therapist as a Crucial Variable in Psychotherapy" to the Institute of Living, Hartford, Conn.; on "Attitudes of Final Year Clinical Clerks towards Psychiatry" (co-author) to the Canadian Psychiatric Association in Regina.
- Professor R. S. FREEMAN, on "The Biology of *Diphyllobothrium* spp. in Algonquin Park" at the W. K. Kellogg Biological Station of Michigan State University; on "The Ontogeny, Phylogeny and Taxonomy of the Cestoda" to the Department of Zoology, University of Guelph.
- Dr. S. J. J. FREEMAN, the keynote speech in a two-day seminar on Family Life Education co-sponsored by the North York Family Service Centre, the North York Public Library, the North York Board of Education, the National Film Board of Canada and the Canadian Mental Health Association; on "Community Psychiatry" to the annual meeting of the Metropolitan Branch of the Ontario Association of Professional Social Workers; on "The Development of a Programme of Community Psychiatry in a Canadian Metropolitan Borough" to the Joint Meeting of the Canadian Public Health Association and the Ontario Public Health Association, Ottawa.
- Professor J. B. FRENCH, on "Recent Developments in Canadian Aerospace Research" to the East York chapter, Association of Professional Engineers for the Province of Ontario; on "Molecular and Ion Beam Interactions with Surfaces" at the conference on Surface Studies, Xerox Corporation, Rochester; on "Planetary Entry Simulation by Molecular Beams" to the conference on High Altitude Composition Analysis of Planetary Atmospheres, at NASA Langley Research Center.
- Professor M. L. FRIEDLAND, on "Recent Developments in Securities Legislation" to the Department of Political Economy, University of Toronto; on "The Lower Courts" at the mid-winter meeting of the Canadian Bar Association; on "Pre-trial Procedures" at the Faculty of Law, Queen's University; on "Privacy and Data Banks" at the Computer and the Law Conference, Queen's University.
- Dr. NORTHROP FRYE, on "Dickens and the Comedy of Humors" to the English Institute, New York.
- Professor C. R. FUERST, on "Physiological Genetics of a Temperate Phage" at Roswell Park Memorial Institute, Buffalo; on "Additional Defective Mutants of Lambda" at a Lysogeny workshop, Sorrento.
- Professor H. J. FULLER, on "The Expense Budget" to the Hamilton Pharmaceutical Association.
- Dr. J. FUREDY, on "Operant Conditioning of GSR Amplitude" to the annual meeting of the Midwestern Psychological Association in Chicago.
- Dr. G. L. GALE, on "The Prognosis of Genito-Urinary Tuberculosis" to the nineteenth Conference of the International Union against Tuberculosis, and in Edinburgh.
- Miss MARGARET GALLOWAY, on "Development of Stringed Instruments" to the annual convention, New York State Council for Children, New York.
- Dr. J. M. GANDY, on "Discretionary Powers in Police" to a session of a seminar on Police and the Young Offender at McMaster University.
- Dr. D. A. GARCIA, on "The Use of Thiazides in the Prevention of Renal Calculi" (co-author) to the Royal College of Physicians and Surgeons of Canada.
- Professor G. D. GARLAND, on "Some Results of Thermal and Electrical Studies in Canada" to the Pan-American symposium on the Upper Mantle, Mexico City.
- Professor D. P. GAUTHIER, on "Hare's Critique of Naturalism" at the University of Waterloo.
- Dr. D. G. GEALE, on "Arachnoiditis and Cauda Equina Syndromes as a Sequel to Thorotrast Myelography" (co-author) to the Royal College of Physicians and Surgeons of Canada.
- Professor FREDERICK GERSON, on "Voltaire et le sentiment de l'amitié" at the Voltaire Conference at the Banff School of Fine Arts.
- Dr. F. G. F. GIBB, on "Cognate Xenoliths in the Ultramafic Dykes of South-west Skye" at the annual meeting of the Geological Society of America, New Orleans; on "The Differentiated Ultrabasic Dykes of South-west Skye and an Experimental Approach to Ultrabasic Magmas" to the Department of Geology, University of Illinois.
- Professor A. G. GIBSON, on "Communications in the Nuclear Age" at St. John's College, Maryland.

- Mr. A. K. GIGEROFF, on "The Criminal Sexual Psychopath" to the Ontario Police College; on "The Sex Offender - Myth and Reality" to the John Howard Society of St. Catharines.
- Professor J. GITTINS, on "Carbonatites" at the Department of Earth Sciences, University of Waterloo; on "A Review of Carbonate Systems in Carbonatite Genesis" at the symposium on Experimental Methods in Petrology and Ore Genesis at the University of Western Ontario.
- Professor I. I. GLASS, on "Research Frontiers at Hypervelocities", the 1967 W. Rupert Turnbull Lecture, at the Canadian Aeronautics and Space Institute annual general meeting, Montreal; on "Detonation-driven, Stable, Spherical Implosions for Generating Plasmas at Extreme Pressures and Temperatures" at the First International Colloquium on the Gasdynamics of Explosions, Free University of Brussels; on "The UTIAS Implosion-driven Hypervelocity Launcher" at the twenty-eighth semi-annual meeting of the Supersonic Tunnel Association, Denver; on "Explosively-driven Spherical Implosions" at the Cornell Aeronautical Laboratory, Buffalo; on "Explosive-driven Spherical Implosions for Hypervelocity-Launcher and Shock-Tube Research" at the Case Western Reserve University School of Engineering colloquium in Fluid and Plasma Dynamics.
- Professor R. J. GLICKMAN, on "José Asunción Silva y el problema de la comunicación" to the Canadian Association of Hispanists at Calgary.
- Dr. J. O. GODDEN, on "Dying for a Smoke" (co-author) at the Centennial conference on Health and Physical Education.
- Dr. C. M. GODFREY, on "Rehabilitation Requirements for Electronic Medicine" (co-author) at the Canadian Electronics conference; on "Rehabilitation, Prospect and Retrospect" to the 11th annual symposium on Rehabilitation (The Rehabilitation Foundation for the Disabled); on "The Care of the Chronically Ill and Elderly Patient" to a seminar at Peterborough Civic Hospital; on "Prevention of Rheumatoid Deformity" to the Ontario Medical Association annual meeting.
- Professor M. GOLD, on "Biochemistry of Lysogeny in E.coli." to the seventh International Congress of Biochemistry, Tokyo; on "Thymineless Death, Colicine and Defective Phage" to the Division of Biology, Atomic Energy of Canada, Chalk River.
- Dr. M. GOLDNER, on "Beta-Lactamase" to the Connaught Medical Research Laboratories.
- Dr. H. GOLOBEK, on "The Therapeutic Contract with the Adolescent" to the annual meeting of the Ontario Psychiatric Association.
- Mr. H. D. GODFELLOW, on "Fluid Electrification" (co-author) at the seventeenth Canadian Chemical Engineering conference in Niagara Falls.
- Dr. W. S. GOODMAN, on "Sinusitis" to Scarborough Medical Society; on "Frey's Syndrome" at Toronto General Hospital.
- Dr. J. W. GOODWIN, on "The Effect of Graded Reductions of Umbilical Blood Flow on Individual Ventricular Outputs in the Foetal Lamb" to the Canadian Society for Clinical Investigation.
- Dr. D. A. GORDON, on "Differential Diagnosis of Arthritis" to the Peterborough County Medical Society; on "Autoimmunity and Rheumatic Disease" to the Kitchener Academy of Medicine; on "The Management of Rheumatoid Arthritis" to South Peel Hospital; on "Correlation between the Rheumatoid Biologically Active Factor (RBAF) and Clinical Features of Rheumatoid Arthritis (RA)" to the fourth Pan-American Congress of Rheumatology, Mexico City; on "Amyloidosis resembling Rheumatoid Arthritis (RA) secondary to Multiple Myeloma with Bence Jones (B.J.) Proteinuria" to the Interurban Arthritis meeting, Cleveland.
- Professor R. A. GORDON, on "Methods and Applications of Regional Anaesthesia of the Femoral and Obturator Nerves" to the annual meeting of the West African Association of Surgeons at Lagos.
- Dr. C. K. GORMAN, on "Prediabetes" to the Canadian Workshop on Diabetes at Montebello, P.Q.
- Dr. C. C. GOTLIEB, on "The Literature on Computers" and on "Translator Programs" at Williams College, Williamstown, Mass., as part of the SIAM Visiting Scientists Lectureship Program; on "File Processing" (5 lectures) at Kansas State University; on "Computer Operating Systems" to the Grand Valley section of the Computer Society of Canada at the University of Waterloo; on "The Role of Computers in Universities", on "The Computer Facility", on "Computer Science Academic Programs" and on "Research with Computers" at Waseda University, Keio University, International Christian University and the University of Tokyo.
- Professor T. A. GOUDGE, on "The Field of Values" to the Center for Culture and Technology, University of Toronto.
- Dr. J. W. GRAHAM, on "The Cretan Palace: Sixty-seven Years of Exploration" at the Smith College symposium in honor of Harriet Boyd Haws; on "Palaces of the Homeric Heroes" to the Societies of the Archaeological Institute of America at Albany, New Haven, Providence, Worcester and Andover; on "Crete and its Palaces" to the Society at Lansing, Mich.
- Professor F. S. GRANT, on "New Ways of Looking at Airborne Geophysical Data" at the eighteenth annual Technical Conference of the Institute of Geophysics and Planetary Physics at Riverside, Cal.; on "Aeromagnetism in the Fournier Domain" at Dalhousie University.
- The Reverend J. W. GRANT, on "The Impact of Christianity on Canadian Culture and Society,

- 1867-1967," a Ker Lecture at McMaster Divinity College; on "The Influence of Confederation on the Protestant Churches" to a joint session of the American Society of Church History and the American Catholic Historical Association, Toronto; on "The Church and Immigration to Canada, 1900-1930," the presidential address to the Canadian Society of Church History.
- Dr. M. F. GRAPKO, on "Signposts for Mental Health" to the Grey County branch of the Canadian Medical Association; on "Mental Health in School Practice" to the annual Teachers' Conference, Saint John, N.B.; on "The Opting-out Child" to the Ontario Educational Association.
- Dr. C. C. GRAY, on "Desquamative Interstitial Pneumonitis" to the Ontario Thoracic Society meeting; on "Clinical Observations and Discussion on Pulmonary Embolism" to the Refresher Course for Practising Radiologists in Toronto.
- Professor K. G. GRAY, on "Traumatic Neurosis: Psychiatric Problems" to the Royal College of Physicians and Surgeons of Canada; on "Legal Problems and Procedures in Medical Practice" at Dalhousie University.
- Professor W. F. GRAYDON, on "Hydrogen-Oxygen Ion Exchange Membrane Fuel Cells" (co-author) and on "Fluid Electrification" (co-author) to the seventeenth Canadian Chemical Engineering conference in Niagara Falls.
- Dr. A. K. GRAYSON, on "Late Babylonian Chronicle Series" at the twenty-seventh International Congress of Orientalists; on "A Babylonian Chronicle of Market Prices" at the annual meeting of the American Oriental Society in San Francisco.
- Dr. T. B. GREENFIELD, on "The Educator Looks at the Process of Change" at the conference of the Ontario Secondary School Headmasters' Council, Ste. Adèle.
- Mr. CYRIL GREENLAND, on "Mental Health Review Tribunals in England and Wales" to a Columbia University training program in psychiatric epidemiology.
- Professor J. W. GREIG, on "The Non-Graded School: Myth or Reality?" to the trustees, principals and teachers of the Cornwall area.
- Professor P. A. GRIFFIN, on "Nuclear Spin-Lattice Relaxation in Dilute Magnetic Alloys" to the Eastern Regional meeting of the Theoretical Physics division, Canadian Association of Physicists, at Kingston.
- Professor F. J. C. GRIFFITHS, on "Soviet Political Structure" at the Armed Forces Staff College, Toronto; on "Current Priorities of Soviet Foreign Policy" at the National Defence College, Kingston.
- Professor G. M. A. GRUBE, on "Conjecture and Hypothesis in Classical Scholarship" at a colloquium in Classical Studio, University of New York at Buffalo.
- Professor J. E. GUILLET, on "Photochemistry of Macromolecules" at the Research Laboratories, Xerox Corporation, Rochester, and at the fourth Biennial Conference on Macromolecular Chemistry of the American Chemical Society, University of Massachusetts; on "Energy Transfer in Polymer Systems" at Bell Telephone Laboratories, Murray Hill, N.J.; on "Theory of Shock Initiation of Peroxide Decomposition" at the Research Laboratories, Imperial Oil Enterprises, Sarnia, Ont.; on "Mechanism of Ziegler Catalysis" at the Research Laboratories, Polymer Corporation, Sarnia.
- Mr. ROY GURNEY, on "We have Mutual Concerns" to the Toronto Trade Composition Association.
- Professor K. S. GUTHKE, on "Das Drama des Expressionismus und die Metaphysik der Enttäuschung" at the University of Minnesota.
- Dr. H. F. HABERMAN, on "Serum Tyrosinase in Mouse Melanoma" to the Canadian Dermatology Association, Quebec.
- Dr. D. A. HALDENBY, on "Malignant Tumours of the Middle Ear" to the Toronto Western Hospital Clinical Research meeting.
- Dr. E. J. HALLER, on "The Social Sciences, Educational Administration, and the Sociology of Knowledge" and on "Political Socialization and the Structure of the Elementary School" (co-author) to the annual meeting of the American Educational Research Association, Chicago; on "The Mythology of Principal Leadership" to the Toronto Township Principals' Association; on "The Role of the Principal in Leadership" to the Ontario County Principals' Association, Beaverton, Ont.
- Professor W. D. HALLS, on "Comparative Studies and Adult Education" to a seminar on Comparative Studies in Adult Education, OISE; on "Socio-Cultural Dilemmas in French Educational Reforms" at the Teachers' College, Columbia University; on "The Contribution of Historical and Comparative Studies to Educational Enquiry" to the History and Philosophy of Education seminar at OISE.
- Dr. J. R. HAMILTON, on "Experimental Production of Abnormalities of Function and Structure in the Small Intestine" to the Canadian Paediatric Society; on "Diarrhea associated with Functioning Ganglioneuroma" (co-author) to the Canadian Society of Clinical Investigation; on "Intolerance to Dietary Gluten in the Rat produced by the Constant Infusion of Dilute Lactic Acid into the Intestinal Lumen" to the Federation of American Societies for Experimental Biology, Atlantic City; on "Infusion of Lactic Acid into the Intestinal Lumen" and on "An Experimental Model of Gluten Intolerance" to the 8th International Congress of Gastroenterology, Prague.
- Dr. W. B. HANLEY, on "Malnutrition caused by Dietary Treatment of Phenylketonuria" (co-author) to the American Society for Paediatric Research, Atlantic City; on "Metabolic Screening of the Newborn" to the Academy of Medicine, Toronto.

- Professor C. M. T. HANLY, on "A Human Life in an Automated World" at the annual meeting of the Registered Nurses' Association of Ontario; on "President's Report" at the annual meeting of the Canadian Peace Research and Education Association, Calgary.
- Dr. W. J. HANNAH, on "The Problem of Prolonged Labour" and on "Myths in Obstetrics and Gynaecology" to the regional meeting, Royal College of Physicians and Surgeons of Canada and Atlantic Society of Obstetricians and Gynaecologists, Halifax.
- Miss M. HARLAND, on "Stabilizing Mechanisms of the Knee Joint" to the Postgraduate Course, Physical Therapists, University of Toronto.
- Professor R. O. HARRIS, on "Education in Chemistry at Scarborough College" (co-author), an Educational Television tape presented at the annual cic meeting in Vancouver; on "Molecular Nitrogen as a Ligand" at the Department of Chemistry, Université de Montréal.
- Principal R. S. HARRIS, on "Higher Education in Canada 1967" at St. Francis Xavier University; on "Distinctive Features of Canadian Higher Education" at Michigan State University; on "A Matter of Balance" to the Association of Universities and Colleges of Canada at Montreal; on "The Development of Post-Secondary Education in Ontario" at Brock University; on "Professional Education and General Education in the Canadian Universities" to the Humanities Association of Canada, University of Guelph.
- Professor A. G. HARRISON, on "Molecular Decompositions in a Mass Spectrometer" to the Mass Spectrometry Discussion Group, American Chemical Society, Orange, N.J.; on "Ion-Molecule Reactions in Vinyl Fluoride" and on "Fragmentation of Aliphatic Sulfur Compounds" at the sixteenth annual conference on Mass Spectrometry, Pittsburgh.
- Dr. JOAN E. HARRISON, on "Thorotrast Body Burdens and Late Sequelae following Myelography" to the Eastern Great Lakes chapter of the Society of Nuclear Medicine; on "Arachnoiditis and Cauda Equina Syndromes as a Sequel to Thorotrast Myelography" (co-author) to the Royal College of Physicians and Surgeons of Canada.
- Professor D. G. HARTLE, on "The Impact of New Tax Policies on National Unity" to the National Conference on the Economics of Unity, Banff; on "The Carter Commission Proposals and the Extractive Industries" to the International Fiscal Association in New York; on "The Carter Proposals" at a conference sponsored by the Saskatchewan Council of Public Affairs in Regina; on "The Six Studies on the Carter Report prepared by the Institute for Policy Analysis for the Department of Finance" at the Financial Markets Conference sponsored by the School of Business.
- Dr. D. E. HASTINGS, on "Rheumatoid Arthritis" to the Ontario Medical Association.
- Dr. J. E. F. HASTINGS, on "Current Developments in Canadian Health Services" to graduate students in public health at the University of Massachusetts; on "Co-ordination of Community Health Services" to the Peel County Social Planning Council.
- Professor J. F. HEARD, on "The Spectrum of Nova Vulpeculae" to the General Assembly of the Royal Astronomical Society of Canada at the University of Calgary.
- Professor M. R. HECHT, on "Management Development" to a seminar on Managing the Engineering Function; on "Education Expeditior of Change" to an Executive Forum on Change and the Dynamic Organization; on "Education and Change" to the Atlantic Forum on Change conducted by the universities of Moncton and New Brunswick and Dalhousie University; the Convocation Address to the first annual convocation ceremony of the Toronto chapter of the Canadian Industrial Management Association.
- Professor R. O. HEIMBECKER, on "Experimental Myocardial Infarction" to the University of Wisconsin; on "Modern Trends in the Management of Shock" and on "Modern Trends in the Management of Pulmonary Embolism" to St. John's General Hospital; on "Emergency Infarctectomy" at Harman Hospital, Stephenville, Nfld.; on "Experimental Myocardial Infarction" at Columbia University Medical Center; on "Modern Trends in the Management of Pulmonary Embolism" to the British Columbia Medical Society; on "Experimental Myocardial Infarctectomy with a Preliminary Report on the Clinical Application" at the fortieth annual meeting, American Heart Association, in San Francisco; on "Symposium on Aggressive Management of Coronary Artery Disease" at the University of Chicago and at the American College of Cardiology; on "Decompression Sickness - A New Look at the Bends" to the Society of University Surgeons; on "Surgery for Heart Attacks" to the Medico-Legal Society of Ontario; on "Surgery for Ventricular Aneurysm" to the Wisconsin Surgical Society at the University of Toronto; on "Surgical Treatment of Coronary Artery Disease" to the Columbia College of Physicians and Surgeons; on "Decompression Sickness" to the U.S. Naval School, Washington Navy Yard.
- Dr. H. R. HELD, on "Use of Tuberculin PPD-C¹⁴ to Evaluate the Efficacy of Various Substances to Prevent Adsorption of Tuberculo-protein to Glass Surfaces" (co-author) at the nineteenth International Tuberculosis conference in Amsterdam.
- Dr. C. E. HENDRY, on "Public Response to Public Welfare Legislation" at the Centennial conference of the Institute of Public Administration of Canada, at McMaster University; on "Community Development and our Native Peoples," the keynote address at the Anglican Missionary Bishops' conference, Winnipeg.
- Dr. JOHN HERBERT, on "Psychology in the Teacher Preparation Program" at the meeting of the Psychological Foundations study group, Eugene, Ore.; on "Research Opportunities in developing a Psychology Curriculum for Teachers" at the annual meeting of the American Educational Research Association, Chicago; on "Report on Psychology in the

- MAT Program at Reed College" to the Psychological Planning Group of the Oregon State Department of Education.
- Professor C. HERSHFELD, on "The Mobilization and Exploitation of the Structural Potential of Woven Fabrics" at the fifty-fifth annual convention of the Canvas Products Association International, Quebec City.
- Professor G. HETENYI, JR., on "Mechanisms in Glucose Homeostasis" at McGill University; on "The Liver, Insulin and the Homeostasis of Glucose" at the University of Manitoba.
- Dr. J. S. HEWITT, on "Photonuclear Experiments with the Toronto Linac" at the National Bureau of Standards, Washington, D.C.; on "Application of Self-Powered Gamma Detectors in Monitoring the Intensity and Position of Bremsstrahlung Beams" to the American Physical Society, Washington.
- Dr. E. S. HICKCOX, on "U.S. Superintendents - A Descriptive Analysis" to the annual meeting of the Canadian Council for Research in Education.
- Dr. J. C. HILL, on "Entropion" to the American Academy of Ophthalmology and Otolaryngology meeting, Chicago; on "Hygiene and Sterile Technique for the Ocularist" to the American Society of Ocularists, Chicago; on "Bacterial Decontamination of Polymethyl Methacrylate in Ophthalmology" to the Canadian Ophthalmological Society.
- Professor C. O. HINES, on "Dynamics of the Upper Atmosphere over Europe" to le Groupe de Recherches ionosphériques in Paris; on "Gravity Waves in the Upper Atmosphere" to the Physics Department seminar at McMaster University; on "Some Consequences of Dissipative Effects on the Propagation of Atmospheric Gravity Waves in the F Region", on "A Possible Observational Selection imposed by Background Winds on Atmospheric Gravity Waves" and on "The Resolution of Waves in the Analysis of Ionospheric Drifts" to the IAGA/URSI symposium on Upper Atmospheric Winds, Waves and Ionospheric Drifts, St. Gallen; on "Tropospheric Sources of Gravity Waves in the Mesosphere" in the IAMAP/COSPAR session on Problems of the Winter Atmosphere from the Stratosphere to the Turbopause, Tokyo; on "Recent Advances in Upper Atmospheric Dynamics" to the Canadian Meteorological Society, Calgary.
- Dr. GERALD HODGE, on "Urban Structure and Regional Development" to the fourteenth United States annual meeting of the Regional Science Association at Harvard University; on "Innovation: Key to Planning the Future Environment," the keynote address at the fifth annual Manitoba Planning Conference in Winnipeg; on "The Regions of Peterborough and their Role in Planning the Future Environment" to the community development seminar at Trent University.
- Mr. M. J. S. HODGE, on "Origins and Species: A Commentary on the Historical Sources of Darwinism" to the Canadian Society for the Study of the History and Philosophy of Science at Toronto.
- Principal J. E. HODGETTS, on "A Model of Administrative Power" at the Senior Officers' seminar, Province of Ontario.
- Dr. JUDITH F. M. HOENIGER, on "Cytology of Spore Germination in *Clostridium pectinovorum*" at the annual meeting of the American Society for Microbiology; on "Fine Structure of the Filamentous Bacterium *Sphaerotilus*" at the annual meeting of the Canadian Society of Microbiologists.
- Professor HELEN S. HOGG, on "Astronomical Break-through from Telephone Research" to the Telephone Pioneers of America.
- Dr. JOHN HOLLAND, on "Forces for the Relocation of Educational Politics in Canada" at the seminar on Negotiation at the Provincial Level sponsored by the Canadian Teachers' Federation, Montreal.
- Professor R. B. HOLMES, addresses as Visiting Professor at Yale University School of Medicine and at Harvard University School of Medicine; and to the Royal College of Physicians and Surgeons of Canada.
- Dr. S. J. HOLMES, on "Therapeutic Communication with People Suffering from Drug Dependency" to the Alex G. Brown Memorial Clinic fifth annual conference on Addiction and Sexual Deviation, sponsored by the Department of Reform Institutions.
- Professor F. C. HOOPER, on "Time Delay in Flashing of Superheated Water" to the annual Technique Meeting of the Ontario chapter, American Society of Heating, Refrigerating and Air Conditioning Engineers.
- Mr. G. HORNE, on "Nonlinear Programming and Second Variation Schemes" (co-author) at the International symposium on Mathematical Programming, Princeton University.
- Dr. O. HORNKIEWICZ, on "Brain Amines in Basal Ganglia Diseases" at the Toronto General Hospital.
- Professor MICHAEL HOUGH, on "The Principles of Site Development for Elementary Schools" at the School Design Workshop of the Ontario Department of Education.
- Dr. J. B. HOUPPT, on "An Unusual Renal Tubular Defect" to the Canadian Rheumatism Association annual meeting, Montreal; on "Hypouricemia" to the third Laurentian course in Rheumatology, L'Esteville; on "Tryptophan Metabolism" to the Clinical Research Society; on "Tryptophan Metabolism in Rheumatoid Arthritis and Scleroderma" to the American Rheumatism meeting, Baltimore; on "The Extra-Articular Manifestations of Rheumatoid Arthritis" to the Ontario Hospital Association and Canadian Arthritis and Rheumatism Society; on "Biochemical Abnormalities in Collagen Disease" to the annual meeting, Canadian Rheumatism Association.
- Dr. J. H. HOUSE, on "Descriptive Characteristics of School Superintendents in the United

- States and Canada: Comparisons and Implications" at the annual meeting of the Canadian Council for Research in Education; on "Supervision and Staff Development" to the Ontario Secondary School Principals' seminar on Professional Development, Niagara Falls.
- The Reverend W. J. HOWARD, on "Wilson Harris's Guyana Quartet: From Personal Symbolism to National Identity" to the Conference of the Association for Commonwealth Literature and Language Studies in Brisbane.
- Dean THOMAS HOWARTH, on "University Planning" at McMaster University; on "The Modern Movement in Architecture" at the Art Gallery, Hamilton; the Centennial Address at the Royal Institute of British Architects, London, to commemorate the birth of Charles Rennie Mackintosh; and at Edinburgh University; on "Canadian Architecture" at the University of Strathclyde; on "The History of Architecture in Canada" to the Royal Society of Canada; on "Building Canada" at Ball State University, Muncie, Ind.
- Professor A. F. HOWATSON, on "Aberrant Head Forms of λ Bacteriophage" to the Phage symposium Workshop, University of California conference center, Lake Arrowhead; on "Rhabdoviruses" to a seminar, Department of Biology, McMaster University; on "Structure on Viruses" to the Department of Biology, York University; on "Biophysical and Genetic Studies of Viruses using Conditionally Lethal Mutants" to the Roswell Park Memorial Institute, Buffalo.
- Professor D. R. HUGHES, on "The Canadian Human Adaptability Project at Igloolik in the Eastern Arctic" to the Scandinavian Human Adaptability symposium International Biological programme at the University of Copenhagen.
- Dean F. N. HUGHES, on "A Pharmaceutical Educator Looks at Home Medication" to the Proprietary Association of Canada; on "The Future Practice of Pharmacy" to the Hamilton Pharmaceutical Association.
- Dr. H. HUGHES, on "Distribution, Storage and Metabolism of 1,1-bis(4-chlorophenyl)-2,2,2-trichloroethanol (Kelthane)" to the Federation of American Societies for Experimental Biology, Atlantic City; on "Some Problems in Pesticide Analysis" (co-author) at the annual meeting of the American Industrial Association, Chicago; on "The Effect of Exercise, Thermal and Dietary Stress on the Concentration of 1,1-bis(4-chlorophenyl)-2,2,2-trichloroethane (DDT) in Rats" (co-author) to the Canadian Association for Research in Toxicology.
- Dr. P. C. HUGHES, on "Approaches to Satellite Attitude Stability" at Auburn University; on "Gravity-Gradient Altitude Control Research at UTIAS" to the Canadian Aeronautics and Space Institute's Astronautics symposium in Montreal.
- Professor P. M. HUGHES, on "Poets, Kings and the Growth of Satire in Seventeenth Century England" to the Toronto Renaissance and Reformation colloquium.
- Professor T. E. HULL, on "The Numerical Solution of Ordinary Differential Equations" at the Universities of Alberta and British Columbia; on "The Numerical Integration of Ordinary Differential Equations" at the Courant Institute of New York University, at the Universities in Sydney, Canberra, Adelaide and Melbourne; on "The Numerical Integration of Ordinary Differential Equations - A New Theory" to the National Research Council; on "Ordinary Differential Equations" (series) at the University of Michigan Engineering summer conference.
- Professor J. N. P. HUME, on "Some Reflections about Computers and People" to a seminar on Computers in Educational Administration sponsored by OISE.
- Dr. J. G. HUMPHREY, on "Acute Facial (Bell's) Palsy" to the International meeting of Electromyography, Glasgow; on "Familial Periodic Paralysis" to the second International Congress of Neurogenetics, Montreal; on "Phosphorylase Deficiency Myopathy" (co-author) to the Academy of Medicine, Toronto.
- Professor J. W. HUNT, on "Pulse Radiolysis in Nanosecond Times" to the University of Saskatchewan, Department of Chemistry and Physics; on "Pulse Radiolysis in Nanosecond and Picosecond Times" to the Atomic Energy of Canada, Whiteshell Nuclear Research Establishment, Pinawa, Man.; on "A Pulse Radiolysis System for the Observation of Short-lived Transients" to the symposium on Photochemistry and Radiation Chemistry, us Army Natick Laboratories, Natick, Mass.; on "Pulse Radiolysis Studies of Reactions of Primary Species in Water with Nucleic Acid Derivatives" to the International Conference on Radiation Chemistry, Argonne; on "Chemistry at the Speed of Light" to the Physics Club, McMaster University; on "Nanosecond and Picosecond Detection by Pulse Radiolysis" to the Department of Chemistry, Ohio State University.
- Professor J. F. M. HUNTER, on "How do you Mean?" in the University College public lecture series.
- Professor R. C. A. HUNTER, on "Factors in the Etiology of the Neuroses" to the Maritime Psychiatric Association; on "Psychiatry in Clinical Practice" to the Teaching Symposia, Royal College of Physicians and Surgeons of Canada (chairman); on "The Ideal Residency Training Programme in Psychiatry" to the Quebec Psychiatric Association; on "The Psychiatrist as a Public Educator", the Homer McCuaig Lecture at Queen's University.
- Dr. W. S. HUNTER, on "Hemolytic Glaucoma" to the Verhoeff Society meeting, Washington, D.C.; on "The Pathology of Primary and Secondary Open Angle Glaucoma" to the annual Eye Teaching Day, Edward J. Meyer Memorial Hospital, State University of New York at Buffalo; on "Adnexal Carcinoma of Eyelid" to the Eastern Ophthalmic Pathology meeting, Montreal.

- The Reverend J. C. HURD, JR., on "The Sequence of the Pauline Letters" to the Society of Biblical Literature and Exegesis in New York.
- Professor W. M. HURLEY, on "Cord Twist: A Patterned Decorative Ceramic Attribute" to the annual meeting of the Society for American Archaeology, Ann Arbor; on "Archaeology and Soils" to the First annual meeting of the Canadian Archaeological Association at Winnipeg; on "The Middle Woodland Occupation at the Silver Creek Site: West Central Wisconsin" to the Central States Anthropological Society, Detroit.
- Professor F. P. IDE, on "Effects of Pesticides (Toxicants) on Stream Life" to a symposium on Microbiology and Water Pollution held in connection with the meetings of the Society for Industrial Microbiology at the University of Western Ontario.
- Professor R. A. IMLAY, on "Descartes' Ontological Argument" to the American Philosophical Association, St. Louis.
- Dr. E. J. INGRAM, on "Program Planning for In-Service Education" and on "The Change Process in In-Service Education" to the Training Session for In-Service Education Consultants of the Manitoba Teachers' Society; on "A Model for Educational Research and Development" at the conference on *ORSE* and the Teacher, Toronto; on "The Teacher and Educational Change" at the North York Professional Development Day; on "The Role of the Principal in Educational Change" at the Principals' Leadership conference, Kingston; on "Forced Fields Analysis" at the Principals' Leadership conference, Peterborough; on "Some General Principles for the Evaluation of School Operations" at the conference for School Board Officials, Toronto.
- Mr. J. K. K. IP, on "A Recombination of Br Atoms by Flash Photolysis over a Wide Temperature Range" (co-author) at the Discussions of the Faraday Society, Toronto.
- Professor J. B. IRIBARNE, on "Non-disturbing Turbulent Flow Measurements using a Photolitic Dye Technique" (2 papers) (co-author) to the American Physical Society, Bethlehem, Pa.
- Principal D. G. IVEY, on "The Nonscience of Education" at the Centennial Science Teachers' conference in Toronto.
- Mr. P. JACKSON, on "Observations of Normal Galaxies at Centimetre Wavelengths" at the 125th meeting of the American Astronomical Society in Philadelphia.
- Professor W. R. JACKSON, on "Arthroscopy" to the Canadian Orthopaedic Association meeting; on "A Biomechanical Approach to the Study of Fracture Healing" to the Canadian Orthopaedic Association (Research Section); on "A Surgeon Looks at the Knee Joint" and on "Arthroscopy of the Knee Joint" to the Massachusetts General Hospital; on "Osteogenesis - *in vitro* and *in vivo* Studies" to the Toronto Western Hospital Medical Research seminar.
- Dr. R. S. JAMES, on "Stability and Phase Relations of the Intermediate Mg-Fe Chlorites" (co-author) at the symposium on Experimental Methods in Petrology and Ore Genesis at the University of Western Ontario; on "Phase Relations in the System $\text{NaAlSi}_3\text{O}_8\text{-KAlSi}_3\text{O}_8\text{-CaAl}_2\text{Si}_2\text{O}_8\text{-SiO}_2\text{-H}_2\text{O}$ at 1000 Bars Water Pressure" at the meeting of the American Geophysical Union, Washington; on "An Occurrence of Sodalite at the Princess Quarry, Bancroft, Ontario" at the thirteenth annual meeting of the Mineralogical Association of Canada, Vancouver.
- Professor W. JANISCHEWSKYJ, on "Analysis of Corona Losses on D. C. Transmission Lines Unipolar Lines" (co-author) and on "Digital Simulation and Analysis of Power System Dynamic Performance, Part 1: Effects of Synchronous Machine Amortisseur Circuits and Control Mechanisms" (co-author) to the Winter Power meeting of IEEE in New York.
- Professor C. D. JAY, on "World Mission and World Civilization", the MacKay Memorial Lectures, to the universities of British Columbia, Alberta, Saskatchewan and Manitoba.
- Mr. MARSH JEANNERET, on "The Role of a University Press" at Hart House; on "Information Retrieval and the Decision to Publish" at the Computers and the Law Conference at Queen's University.
- Dr. K. N. JEEJEBHOY, on "Psychosomatic Aspects of Gastrointestinal Disease" to the Nightingale School of Nursing, Toronto; on "Ulcerative Colitis and Crohn's Disease" at St. Joseph's Hospital, Hamilton; on "Tropical Sprue" to the Columbia Institute of Nutritional Sciences symposium, Haiti.
- Dr. R. D. T. JENKIN, addresses to the Ontario Cancer Treatment and Research Foundation, Hamilton; symposium on Neoplasms in Childhood, M. D. Anderson Hospital and Tumour Institute, Houston, Texas; Royal College of Physicians and Surgeons of Canada; Canadian Association of Radiologists.
- Dr. MARION JENKINSON, on "Implication of Recent Developments in Reading and Language for Teacher Education" at the second invitational conference on Elementary Education, Banff; on "From Theory into Practice: Language Arts" to the Scarborough Principals' Association, Peterborough; on "Transferring Research into Effective Classroom Teaching" to the New Jersey Reading Teachers' Association, Atlantic City.
- Dr. R. E. JERVIS, on "Nuclear Energy - Friend or Foe?" in the Rencontre programme of Expo Youth Pavilion; on "Sampling of Biological Materials for Micro-analysis by the Radio-activation Technique" at National Bureau of Standards, Gaithersburg, Maryland; on "Science in the Far East Today" to the Deep River Science Association.
- Dr. A. M. JÉZÉQUEL, on "Analysis of the Effects of Ethionine on the Liver" to the International Symposium on Liver and Endocrines, Paris; on "The Effects of Tetracycline on Protein Synthesis *in vivo*" to the Department of Pathology, University of Pittsburgh School of Medicine; on "Ultrastructural Studies of Cell-virus Interactions" to the Department of

- Biology, Oakland University, Rochester, Mich.; on "Ultrastructural Features of Fatty Liver induced by Tetracyclines" to the Department of Pathology, Mount Sinai School of Medicine, New York.
- Professor H. E. JOHNS, on "Trends in High Voltage Therapy and New Methods of Dose Calculations - Computers in Radiotherapy" to the Southern California Radiation Therapy Society symposium; on "Biophysics Research at the Ontario Cancer Institute" to the Veterans' Administration Hospital, California, and at St. Mary's Long Beach Hospital; on "Biophysics" to the Canadian Undergraduate Physics conference, McMaster University, and at Queen's University; on "Intersystem Crossing in Uracil" to the International Symposium on Basic Mechanisms in Photochemistry and Photobiology, Caracas, Venezuela; on "U.V. Effects on Nucleic Acids" at the Roswell Park Memorial Institute; on "Radiological Physics" and on "Research Projects at the Ontario Cancer Institute" to the Puerto Rico Nuclear Center; on "U.V. Effects on Nuclear Acid Components" to the Pennsylvania State University College.
- Dr. G. E. JOHNSON, on "The Influence of Orally Administered Pranylamine on the Storage and Excretion of Catecholamines in Humans and Rats" to the Toronto Clinical Investigation Society; on "Diarrhea associated with Functioning Ganglioneuroma" (co-author) to the Canadian Society of Clinical Investigation.
- Dr. W. H. JOHNSON, on "Medical Problems of Space Flight" to the Canadian Manufacturers' Association; on "Orientation in Space" to the summer science programme at Carleton University.
- Dr. W. MCA. JOHNSON, on "Ronsard and the Renommée du Louvre" to the Midwest Conference of the College Art Association; on "A Profile of the French Renaissance" to the Graduate School of Fine Arts, University of Pennsylvania.
- Professor C. P. JONES, on "Problems of Method in Greek Epigraphy" to a Classical Discussion group at Harvard University; on "Cicero's other Cato" to the annual meeting of the Classical Association of Canada.
- Professor J. B. JONES, on "Some Chemical Studies related to Steroid Metabolism" at the Shionogi Research Laboratories, Osaka.
- Dr. L. E. JONES, on "Canadian Engineering - A Century of Achievement" to the Nova Scotia Technical College; to the Ontario chapter, American Society of Heating, Refrigerating and Air Conditioning Engineers; and to the Canadian Society of Agricultural Engineering, Hamilton.
- Dr. P. H. JONES, on "Yeast Production using Conventional Activated Sludge Methods for Corn Processing Industrial Wastes" and on "Some Nitrogen Removal Aspects of a Contact Stabilization Plant" at the third Canadian symposium on Water Pollution Research, Toronto.
- Professor A. V. JOPLING, on "Contact-load Segregation as a Cause of Cross-lamination in Laboratory Deltas" at the seventh International Congress on Sedimentology, Reading, England; on "Interpreting Ancient Flow Regimes" to the Department of Geography, McGill University; on "Experimental Studies on the Mechanics of Bedding" to the Department of Geography, University of Waterloo; on "Origin and Interpretation of Cross-bedding" to the Department of Geography, McMaster University.
- Professor E. JORGENSEN, on "Approaches to Shade Tree Research at the University of Toronto" to the forty-third International Shade Tree conference at Philadelphia.
- Dr. A. T. JOUSSE, on "Rehabilitation Requirements for Electronic Medicine" (co-author) at the Canadian Electronics conference; on "A Follow-up Study of Life Expectancy in Paraplegia" to the sixteenth annual Spinal Cord Injury conference, Long Beach, Cal.
- Professor K. W. JOY, on "Growth and Nitrogen Metabolism of *Lemna* in Sterile Culture" to the Canadian Society of Plant Physiologists; on "Glutamate Dehydrogenases and Associated Enzymes from Pea Roots" to the American Society of Plant Physiologists, Midwest section.
- Professor R. W. JUDY, on "Systems Analysis and University Planning" at the symposium on Operations Analysis of Education in Washington; on "System Analysis of Alternative Designs of a Faculty" at the OECD conference in Paris; on "Simulation Models with Special Reference to their Use in Educational Planning" at a seminar of the Siberian section of the Academy of Sciences, USSR, in Novosibirsk; on "Educational Planning" to a seminar given at TSEMI, Moscow; on "The Integration of Simulation Models and Program Budgeting in University Planning and Administration" (co-author) at the joint ORSA/TIMS meetings in San Francisco; on "Health, Education and Welfare" at the CORS conference, Toronto; on "Economic Analysis in University Planning" at the meetings of the Canadian Economic Association in Calgary; on "Simulation Models in University Planning" at a seminar at the University of Waterloo.
- Professor W. KAHAN, on "A Survey of Error Analysis" and on "Ellipsoidal Error Bounds for Trajectory Problems" to the Department of Computer Sciences, University of Wisconsin, at Stanford University and at New York University; on "A Survey of Error Analysis" to the Applied Mathematics Department, Argonne National Laboratory; on "Ellipsoidal Error Bounds for Trajectory Problems" and on "Solving Linear Algebraic Equations" (2 lectures) at the University of California, Berkeley; on "Error in Numerical Computation" at the University of Michigan Engineering summer conference.
- Dr. H. KALANT, on "Interpretation of Post-mortem Ethanol Concentrations" to the meeting of the International Joint Committee on Aviation Pathology, Ottawa; on "Recent Studies on Tolerance and Dependence on Drugs affecting the Nervous System" to the Toronto section

- of the cic; on "Effects of Chronic Ethanol Treatment on Intermediary Metabolic Pathways" (co-author) to the Centennial symposium on Alcohol and Metabolism, Wayne State University; invited participant in the symposium on Congeners in Alcoholic Beverages at Rutgers State University.
- Dr. W. KALOW, co-chairman of a conference on Pharmacogenetics at New York Academy of Sciences; on "Problems related to Pharmacogenetics" at the University of Western Ontario, at Queen's University, at the State University of New York at Buffalo, and at Boston University; on "Basic Sciences related to Anesthesiology" at a symposium at Albert Einstein College of Medicine, New York; on "Problems of Drug Evaluation in Infants and Children" at Ross Conference, Puerto Rico; as a member of a panel on Clinical Medicine and Enzymology at the Royal College of Medicine meeting in Toronto.
- Dr. G. N. J. KANI, on "The Basic Facts concerning Shear Failure of Reinforced Concrete Beams" at the University of Graz; on "What should we Know about the Shear Strength of Reinforced Concrete Beams?" at the University of Vienna; on "Where does a Reinforced Concrete Beam Require a Stirrup and Why?" at the University of Stuttgart; on "The Clarifications of the Riddle of Shear Failure in Reinforced Concrete Beams" and on "Where does a Reinforced Concrete Beam Require a Stirrup and What is its Function?" at the Bavarian Provincial Building Institute, Nürnberg; on "Where do we Need a Stirrup and What is its Function?" to the Ontario chapter of the American Concrete Institute; on "Where does a Reinforced Concrete Beam Require Stirrups?" to the annual meeting of the American Concrete Institute in Los Angeles, and to the ACI committee on Shear and Diagonal Tension; on "Design of Irregular Slab Bridges by using Moment Meter Devices" and on "What should we Know about the Shear Strength of Reinforced Concrete Beams?" to the Department of Civil Engineering, University of Calgary.
- Dr. B. H. KARNOPP, on "Complementary Variational Principles in Applied Mechanics" to the Department of Mathematics, University of Virginia; on "Duality Relations in Mechanics" to the Department of Engineering Mechanics seminar, University of Michigan.
- Dr. J. F. KEFFER, on "The Distortion of a Turbulent Wake" at the seminars in Mechanics series, McGill University.
- Dr. J. D. KEITH, on "Natural History of Congenital Heart Disease" to the Inter-American Congress of Cardiology, Lima, Peru, and at Winston-Salem and Duke University.
- Mrs. J. KELNER, on "Changing Social Patterns" to the Ontario Association of Registered Nurses.
- Professor T. KENINS, on "Composing Music Today" and on "Role of the Conservative Composer in Canada Today" to students and faculty at Waterloo Lutheran University.
- Professor D. J. L. KENNEDY, on "An Assessment of Brittle Fracture in Steel Structures" at the First annual Canadian Structural Engineering Conference.
- Professor D. R. KENNEDY, on "One Hundred Years of Canadian Pharmacy Legislation" at the Canadian Academy of the History of Pharmacy symposium; on "Factors influencing Drug Absorption, Distribution, Metabolism and Excretion" to the Hamilton Pharmaceutical Association; on "Patient Record Systems" in an Ontario College of Pharmacy seminar.
- Professor T. C. KENNEY, on "A Review of Recent Research on the Strength and Consolidation of Sensitive Clays" at the twentieth Canadian Soil Mechanics conference in Quebec City; on "Shearing Resistance of Quick Clays" and on "Residual Strength of Pure Minerals and Natural Soils" at the University of Manchester and at Imperial College, London; on "Physico-chemical Nature of Shear Resistance" to the staff of the Division of Building Research, NRC; on "Shear-strength Behaviour of Sensitive Clays in Engineering Problems" to the Ottawa Geotechnical Group.
- Professor L. M. KENNY, on "A Christian View of the Palestine Problem" at a conference of the Canadian Holiness Federation at Trenton, Ont.
- Dr. G. A. KERBEL, on "General Dermatology" to the Peterborough Medical Society.
- Dr. A. G. KERESTECI, on "Pre-Breathing Oxygen with Radiotherapy in Treatment of Bladder Tumours" to Lake Couchiching Clinical Conference.
- Dr. A. J. KERWIN, on "Observations on the Diagnostic Value of Long-Term Recording of Electrocardiograms" to the annual convention of Canadian Life Insurance Medical Officers' Association.
- Dr. J. M. KHANNA, on "Effects of Chronic Ethanol Treatment on Intermediary Metabolic Pathways" (co-author) to the Centennial symposium on Alcohol and Metabolism, Wayne State University.
- Dr. B. S. L. KIDD, on "Haemodynamic Effects of Propranolol and Isoproterenol in the Anaesthetised Dog" to the Canadian Federation of Biological Societies; on "Shunt Timing and Congenital Heart Disease with a Fibreoptic Cardiac Catheter" to the Canadian Cardiovascular Society; on "The Hemodynamic Spectrum of Congenital Left-to-Right Shunts in Childhood" to the Royal College of Physicians and Surgeons of Canada; on "The Role of Adrenergic Receptors in Hypoxia-induced Pulmonary Vasoconstriction" to the Canadian Federation of Biological Societies; a workshop on Cardiology at the University of Alberta.
- Mr. V. V. KINGSLEY, on "Anatomical Studies of Selenomonads" to the staff of the Department of Biology, McMaster University.
- Dr. P. G. KLOTZ, on "Primary Adult Ureterovesical Reflux" to the Wisconsin Surgical Society.
- Mr. E. KOCZKUR, on "Plume Rise and Dispersion near Lake Ontario" (co-author) to the fall meeting of the Ontario section of the Air Pollution Control Association in Toronto.

- Dr. I. H. KOVAN, on "Hyponatremic Encephalopathy" at the annual meeting of the Royal College of Physicians and Surgeons.
- Mr. M. KRAUSZ, on "R. G. Collingwood and the Logic of Questions" at the Case Western Reserve University.
- Dr. M. N. KROCH, on "Serial Urinary Oestrogen Assays in the Management of the Diabetic Pregnancy" (co-author) to the sixth World Conference on Fertility and Sterility, Tel Aviv, and to the Society of Obstetricians and Gynaecologists of Canada.
- Professor A. KRUGER, on "Wage Parity" to the Economics Club, University of Guelph, and to the Industrial Relations Centre, McGill University; on "Collective Bargaining and Technological Change" at the Manitoba conference on Technological Change; on "The Role of International Unions in the Canadian Labour Movement" at McGill University; on "Collective Bargaining and the Professions" at the School of Hygiene, University of Toronto; on "Recent Innovations in Collective Bargaining" at Labour College, Montreal.
- Professor A. KUKSIS, on "Bile Acid Composition of Perfused Liver Bile of Normal and Choline Deficient Rats" (co-author), on "Molecular Species of Lecithins in Plasma and Erythrocytes of Man" (co-author) and on "Specific Distribution of Short Chain Fatty Acids in Bovine Milk Fat" (co-author) to the tenth annual meeting of the Canadian Federation of Biological Societies, McGill University; on "Quantitative Gas Chromatography in the Structural Characterization of Glycerol Phosphatides" and on "Analysis of Bile Acids" to the American Oil Chemists' Society short course, Rice University; on "Triglyceride Composition of Milk Fat" to the Special Dairy Industry Board symposium, Chicago; on "Plasma Lipids of Young Adults on Controlled Experimental Diets" (co-author) and on "Gas-liquid Radiochromatography of Intact Natural Triglycerides" (co-author) to the joint meeting of the American Oil Chemists' Society and the American Association of Cereal Chemists, Washington.
- Dr. M. A. KUMAR, addresses at the symposium on Thyrocalcitonin and the C-Cells, London, England, and to the third International Parathyroid conference, Mont Gabriel, P.Q.
- Professor J. D. KYLE, addresses to the conference sponsored by the Industrial Relations Center, Queen's University; to the Industrial Relations Association of British Columbia.
- Dr. J. C. LADLAW, on "The Renin-Angiotensin System" and on "Non-Endocrine Tumours and Hypercalcemia" to the Postgraduate Assembly of the Endocrine Society, Montreal; on "The Diagnosis of Primary Aldosteronism" at Notre Dame Hospital, Montreal; on "The Control of Aldosterone Secretion" to the Chicago Medical School; on "Glucocorticoid-Remediable Aldosteronism" to the Clinical Research Institute of Montreal; on "The Planning of a New Medical Curriculum" to the New York College; on "Hypertension and the Adrenal Cortex" to the regional meeting, Royal College of Physicians and Surgeons of Canada at Halifax.
- Professor S. A. LAKOFF, on "The Public Use of Private Advisory Organizations" at the annual meeting of the American Society of Public Administrators in Boston; on "Scientific Society: Notes toward a Paradigm" at Western Reserve University; introductory remarks at a panel discussion on "Systems Analysis and Social Policy" at the annual meeting of the American Association for the Advancement of Science, New York; on "Government and Science in the us" at the James Madison College, Michigan State University; on "Science and Government: Theoretical Reflections" at the University of Texas.
- Professor R. B. LAND, on "Recent Trends in Education for Librarianship" to the students of the University of Ottawa Library School.
- Dr. S. LANDI, on "Use of Tuberculin PPD-C¹⁴ to Evaluate the Efficacy of Various Substances to Prevent Adsorption of Tuberculo-protein to Glass Surfaces" at the nineteenth International Tuberculosis Conference in Amsterdam; on "A Comparison between Two Tuberculins, International Standard O.T. and U.S. Standard O.T." (co-author) at the conference on Evaluation of Procedures for Tuberculin Testing sponsored by the Division of Biologics Standards and the American Thoracic Society, Bethesda, Md.
- Professor T. J. LANGAN, on "The Problem of God" in response to a paper of W. N. Clarke at the conference at the State University of New York at Buffalo; on "Heidegger and the *Morgenröte* Herald God's Return" at a conference on Contemporary Atheism at St. Mary's College, Notre Dame, Ind.; on "The Religious Thought of Michel Henry" in response to Louis Dupré's paper at a conference on Lecomte de Noüy at University of Notre Dame; on "Sense and Structure in History" to the Philosophy Department, Scarborough College and to the University of Waterloo; on "Sense and Structure in History" (revised) to Glendon College, York University, and to the University of St. Thomas, Frederickton; on "Heidegger beyond Hegel" to the Heidegger Circle, University of Pittsburgh; on "Heidegger and the Problem of the Thing" and on "Heidegger and the Return of God" at St. John Vianney Seminary, East Aurora, N.Y.
- Dr. BERNARD LANGER, on "Vagotomy and Pyloroplasty in the Treatment of Massive Haemorrhage from Duodenal Ulcer" and on "The Pathophysiology of Bowel Obstruction" to the Royal College of Surgeons.
- Dr. E. L. LANSDOWN, addresses to the Royal College of Physicians and Surgeons of Canada; the University of Manitoba.
- Dr. T. R. LAWRENCE, on "Steady State Assumption and the Dissociation of Br₂ in Shock Waves" (co-author) at the sixth International Shock Tube symposium, Freiburg a/Brau, West Germany; on "Dissociation and Two-Body Emission in Shock Heated Bromine" at the Chicago meeting of the American Chemical Society.

- Professor D. H. LEE, on "The Provisions for Masonry Construction of the National Building Code of Canada, 1965, and their Influence on Masonry Construction" to the Ontario Concrete Block Association; on "Construction de Gratte-Ciels en Mur Porteur" at le Conférence régionale de Québec de l'Association nationale des producteurs de *béton* in Montreal; on "Masonry-Bearing Wall Construction for Multi-Storey Buildings" to the Ontario Concrete conference sponsored by the Concrete Industries of Ontario and the Department of Civil Engineering, University of Toronto.
- Professor E. S. LEE, on "SLI for the IBM 1130" (co-author) to the COMMON meeting in Chicago.
- Professor CLIFFORD LEECH, on "*Tamburlaine* and the Conceits of Clownage," on "*Doctor Faustus*: A Moral Play?" on "Faustus and the Idea of Damnation," on "Marlowe's French History," on "Black Comedy and Comic Tragedy: The Balancing Act of Christopher Marlowe," on "Comic Ritual in the Plays of Middleton," on "*Catharsis* in Elizabethan Drama," on "Shaw's Contemporaries," on "From Shaw to Pinter" and on "The Servants will do that for us': The Poet's Withdrawal from the World" at the University of Auckland, the University of Waikato, Massey University, the Victoria University of Wellington, the University of Canterbury and the University of Otago, during his tenure of a Commonwealth Prestige Fellowship in the universities of New Zealand; on "Shakespeare among his Fellows" and on "*Catharsis* in Elizabethan Drama" at the University of New England, NSW; on "Shakespeare among his Fellows" to the Shakespeare Society of Japan; on "Mighty Opposites': An Aspect of Shakespearean Tragedy" at Oakland University, Mich.; on "*Tamburlaine* and the Conceits of Clownage," on "Shakespeare and the Idea of Locality" and on "Black Comedy in the Renaissance: *The Jew of Malta* and *The Revenger's Tragedy*" at Temple University.
- Dr. W. D. LEERS, on "An Unusual Case of Suppurative Thyroiditis caused by *Actinomyces naeslundii*" to the Canadian Society of Microbiologists at Windsor.
- Mrs. N. LEIPEN, on "Coptic Art and Textiles" to the Ontario College of Art; on "The Parthenos of Phidias" to the Toronto Society of Archaeological Institute of America.
- Professor J. T. LEMON, on "Report on Quantitative Materials in Early Pennsylvania" to the Conference on Quantitative Data in Early American History, Williamsburg, Va.; on "Approaches in Urban History Geography" to the Ontario Group for Study of Historical Geography, Toronto.
- Professor MONIQUE LÉON, a series on contrastive analysis of French and Brazilian Portuguese phonology for teachers of French at the Alliance Française of São Paulo and at the University of Guanabara, Rio de Janeiro; on French phonology at the second Latin-American Congress of Applied Linguistics in Porto Alegre.
- Professor P. R. LÉON, a series of lectures on contrastive analysis of French and Brazilian Portuguese phonology for teachers of French, at the Alliance Française of São Paulo and the University of Guanabara, Rio de Janeiro; on French phonology at the second Latin-American Congress of Applied Linguistics in Porto Alegre.
- Dr. W. H. LE RICHE, on "Limitations imposed by Health Conditions on the Capacity of People to Improve their Agriculture" to the members of the Steering Committee at the International Seminar on Change of Agriculture, Bellagio, Italy; on "The Viewpoint of the Epidemiologist" to the symposium on the Price of Food Safety: Four Viewpoints, at the National Research Council Food Protection Committee, Washington, D.C.; on "Hospital Epidemiology" to the courses on Environmental Planning of Hospitals for Architects and Engineers, Ottawa, and at the University of Manitoba Medical College; on "The Relationship of Infectious Disease to Total Mortality" and on "Contamination of Foods and Pesticides" to the Alberta branch of the Canadian Public Health Association; on "A World Picture of Infectious Diseases" to a seminar at Connaught Medical Research Laboratories.
- Professor D. J. LE ROY, on "Kinetics of the Four Basic Thermal Three-Centre Exchange Reactions of the Hydrogen Isotopes" at the Faraday Society discussion on Molecular Dynamics of the Chemical Reactions of Gases held in Toronto; on "Kinetics of the Three-Centre Exchange Reactions of the Hydrogen Isotopes" at the Southwest Regional Conference of the American Chemical Society held in Little Rock, Ark., at York University and at the University of São Paulo, Brazil.
- Mr. R. L. LEROY, on "Participation of Electronically Excited Iodine Molecules in Atomic Recombination Reactions" (co-author) to the Joint Meeting of the American Physical Society, la Sociedad Mexicana de Física and the Canadian Association of Physicists at Toronto.
- Dr. D. LESK, on "The Electron Microscopy of the Crookes Hyaline Cell: A Study of the Fine Structure of the Human Adenohypophysis" (co-author) to the Royal College of Physicians and Surgeons of Canada.
- Mr. J. B. LEVINE, on "Systems Analysis of Alternative Designs of a Faculty" (co-author) to an OECD conference on Budgeting, Program Analysis and Cost Effectiveness in Educational Planning; on "The Integration of Simulation Models and Program Budgeting in University Planning and Administration" (co-author) at the joint meeting of the Institute for Management Sciences and the Operations Research Society of America.
- Dr. H. LEVISON, on "Pulmonary Function in Scoliosis" to the Dewar Orthopaedic Club, Toronto; on "Measurements of Pulmonary Diffusing Capacity in Normal Children and in Patients with Cystic Fibrosis" (co-author) to the Society for Paediatric Research, Atlantic City.

- Professor K. LEVY, on "Releyendo a *María*" at the thirteenth Congress of the Instituto Inter-nacional de Literatura Iberoamericana in Caracas and Mérida, Venezuela; on "Aspectos de la novela moderna de Colombia" at the University of the West Indies, Barbados; on "Manuel Zapata Olivella y el *cuento negro*" to the twenty-first University of Kentucky Foreign Language Conference at Lexington.
- Dr. D. C. LEY, on "Chromosomes in Leukemia" to the Ontario Association of Pathologists; on "Pitfalls of Serum Iron Determination" to the Ontario Medical Association.
- Professor J. F. LEYERLE, on "Chaucer and the Theatre" at the Festspiel of Medieval Drama at the University of Waterloo; on "The Interlace Structure of *Beowulf*" at Ohio State University; on "The Nucleus Image of *Sir Gawain and the Green Knight*" at the fourth biennial conference on Medieval Studies sponsored by the Medieval Institute, Western Michigan University; on "The Centre and its Compass" to the Association of Medieval and Renaissance Studies meeting in Philadelphia.
- Dr. C. C. LIEW, on "The Molecular Basis of Aldosterone Action in Heart Muscle" at the seventh International Congress of Biochemistry, Tokyo; on "Effects of Aldosterone on the Rate of RNA Synthesis *in vivo*" at the annual meeting of the Federation of American Societies for Experimental Biology, Atlantic City; on "An Effect of Aldosterone on the Activity of RNA Polymerase in Heart Cell Nuclei" at the meeting of the Canadian Federation of Biological Societies.
- Dr. L. LINSAO, on "Malnutrition caused by Dietary Treatment of Phenylketonuria" (co-author) to the American Society for Paediatric Research, Atlantic City.
- Dr. J. LIPPIATT, on "Dissociation and Two-Body Emission in Shock Heated Bromine" (co-author) at the Chicago meeting of the American Chemical Society.
- Professor R. LIST, on "A Numerical Experiment on the Growth of Hailstones in a Model Hailstorm" at the National Center of Atmospheric Research in Boulder; on "Hailtunnels and their Impact on the Understanding of Hailgrowth" and on "New Results about the Heat and Mass Exchange of Hailstones" at the Atmospheric Science Department, Colorado State University; on "Problems of the Modelling of Hail Growth" to the US National Severe Storms Laboratory, Norman, Okla.; on "The Micro-physics of the Accretion Process" at the Cloud Physics session of the International Association of Meteorology and Atmospheric Physics; on "Growth and Feedback Mechanisms of Hailstones in One-dimensional Steady State Model Clouds" at the conference on Severe Local Storms at St. Louis; on "Precipitation Particles and Small-scale Turbulence" to the second annual congress of the Canadian Meteorological Society in Calgary.
- Professor M. W. LISTER, on "Ion Pairing and Reaction Kinetics" at Queen's University.
- Professor A. E. LITHERLAND, on "Nuclear Lifetime Measurements" to the Physics division, National Research Council, Ottawa; on "The Mirror Nuclei ^{25}Mg and ^{25}Al " at the symposium on Experimental and Theoretical Nuclear Physics, University of Kansas.
- Dr. J. A. LITTLE, on "Atherosclerosis" to the Bruce County Medical Society.
- Professor E. LLEWELLYN THOMAS, on "The Machine Man Interface" as Foundation Speaker at the first joint meeting of the American Society of Agricultural Engineering at the University of Saskatchewan, and at the University of Manitoba Institute of Agriculture; on "Future Applications of Computers in Anaesthesia" to the Canadian Anesthetists' Society in Ottawa.
- Dr. L. A. LLOYD, on "Electro-nystagmography" to the Canadian Ophthalmological Society.
- Professor L. LOCKHART, on "Isfahan" at the Institute of Islamic Studies, McGill University, in a series to celebrate the coronation of His Imperial Majesty, the Shahanshah of Iran; on "The Decline and Fall of the Safavid Dynasty" to the Oriental Club.
- Dr. R. K. LOGAN, on "Low Energy KN Scattering and Superconvergence" at MIT; on "Regge Poles Phenomenology at the University of Toronto" at the University of Oregon.
- Professor J. J. LOUBSER, on "Human Responses to Technological and other Changes in Industry" at the Manitoba conference on Automation and the Individual in Winnipeg; on "Schools, Values, and Moral Education: A Sociologist's View" to the conference on Moral Education: An Interdisciplinary Discussion of Selected Questions, in Toronto.
- Professor J. W. LOVETT DOUST, on "Some New Psychotropic Drugs and their Psychiatric Indications" to the Royal College of Physicians and Surgeons of Canada.
- Dr. J. A. LOWDEN, on "Polypeptides in Cerebral Myelin from Normal Humans and Patients Dying with Multiple Sclerosis" (co-author) to the American Academy of Neurology, Chicago.
- Dr. C. LUTTOR, on "Viral Infection in Pregnancy" to the Ontario Medical Association.
- Dr. R. LUUS, on "Time Sub-Optimal Control of the Gas Absorber" (co-author) at the seventeenth Canadian Chemical Engineering Conference at Niagara Falls; on "Modern Process Control Development" at the seminar on Automatic Control in Industry at the University of Toronto.
- Dr. A. LYALL, on "Community Psychiatry" at the annual meeting of the Ontario Victorian Order of Nurses.
- Professor L. E. LYNCH, on "Family Values and Society" to the Canadian Welfare conference in Ottawa.
- Dr. M. J. LYNCH, on "Simplified Gold Staining of the Nervous System" to the International Academy of Pathology in Chicago; on "The Thyroid in Cystinosis" (co-author) to the American Association of Pathologists.
- Professor H. R. MACCALLUM, on "'Most Perfect Hero': The Role of the Son in Milton's

- Theodicy" at the conference commemorating the tercentenary of *Paradise Lost* at the University of Western Ontario.
- Professor J. R. MACDONALD, on "Crisis Intervention" at the Alcoholism and Drug Addiction Research Foundation, at the Department of Social and Family Services, Rehabilitation Division, and at the Clarke Institute of Psychiatry.
- Dr. R. I. MACDONALD, on "Right Thinking in the Care of Older Patients" and on "Graduate Education in Clinical Medicine" to the annual meeting of the Saskatchewan division of the Canadian Medical Association.
- Professor E. B. MACDOUGALL, on "The Statistical Information Content of Remotely Sensed Imagery" (co-author) at the Avionics symposium of the Canadian Aeronautics and Space Institute.
- Dr. D. R. E. MACLEOD, on "Measles Vaccines" at the annual meeting of the Health Directors of the Province of Manitoba.
- Dr. R. L. MACMILLAN, on "Red Cell Stickiness" to the American Society of Haematology, Toronto; on "Anticoagulant Therapy" to the Medical Alumni Association, Academy of Medicine, Toronto; on "Coronary Unit in a Large General Hospital" to the Ontario Medical Association annual meeting.
- Professor IAN MACNAB, on "Spondylolisthesis" to the New Jersey Orthopaedic Society; on "Failures of Spinal Surgery" to Interstate Orthopaedic Society, Pittsburgh; on "Results of Orthopaedic Surgery on the Rheumatoid Hand" to Pan American Congress of Rheumatology; on "The Painful Shoulder" to Southwestern Michigan Surgical Society; on "Soft Tissue Injuries of the Cervical Spine: The Pathogenesis of Symptoms due to Intervertebral Disc Disease" to American Academy of Orthopaedic Surgeons; on "Management of Painful Spondylolisthesis" and on "Negative Laminectomy" to the American Academy of Orthopaedic Surgeons; on "Cervical Spondylosis" to the Nicholas Andry Society, Orange, Cal.; on "Advances in Surgery of the Cervical Spine" to UCLA.
- Mr. P. MACNAUGHTON-SMITH, on "Enhancing the Scientific Basis of Correctional Decisions" to the annual meeting of the American Society of Criminology in New York.
- Professor D. A. MACRAE, an address to eight university and research institutions in Wisconsin, Minnesota, Illinois, Iowa and the Dakotas.
- Professor O. W. MAIN, on "The Canadian Economic Climate" to the Toronto Executives Association.
- Professor D. MALVINIA, on "Survey of Recent Study of Jaina Literature" at the seminar for the Study of Religions in the Indian Universities at Bangalore.
- Dr. J. A. MANDARINO, on "Reflectance Spectrophotometry in Mineralogy" and on "The Royal Ontario Museum's new Gallery of Mineralogy" to the combined meeting of the Mineralogical Association of Canada, the Geological Association of Canada, the Mineralogical Society of America and l'Association pour l'Etude géologique des zones profondes de l'écorce terrestre; on "Functions of the Royal Ontario Museum's Department of Mineralogy" to a seminar of the Soil Sciences Department, University of Guelph.
- Dr. J. F. MANERY, on "Ca Ions and Nucleotides at Cell Surfaces" to the second Round Table Conference on Platelets: European Society for Experimental Biology, Castello Miemo, Italy.
- Professor M. R. MANIATES, on "Mannerism and Music: Problems in Style" to the Greater New York chapter of the American Musicological Society; on "The Generations of Dufay and Ockeghem" and on "Josquin Desprez and his Contemporaries" at Symposium 1: *The Renaissance*, sponsored by the Ontario Music Educators' Association; on "The Musical Renaissance as a Stylistic Epoch" at the annual meeting of the North Central Conference of the Renaissance Society of America at McMaster University.
- Dr. E. R. MARKSON, on "A Case of Impaired Mourning" to the Canadian Psychoanalytic Society, Ontario.
- Mr. NATHAN MARKUS, on "The Communication Process" to the second Management Development seminar at L'Estrel.
- Professor J. M. MARSHALL, on "Canadian Programs for the Training of Library Technicians" at the Program Meeting of the Library Education Division, American Library Association, Kansas City.
- Professor O. J. MARSHALL, on "The Present Status of Survey Education in the Province of Ontario at University Level" to the conference on survey education at the University of Toronto.
- Professor R. H. MARSHALL, on "Trends in the Changing Society: Religious and Intellectual Ferment in the USSR" at an international conference on the post-Stalin era, in Geneva.
- Dr. J. T. MAROTTA, on "Clinical Aspects of Acute Necrotizing Encephalitis" to the Canadian Neurological meeting.
- Professor J. M. MARTIN, on "Effect of Adrenaline and 3'5'-cyclic AMP on Insulin Secretion" to the sixth congress, International Diabetes Federation, Stockholm; on "Regulation of Insulin Secretion" to the Workshop on Diabetes at Montebello, P.Q.; on "Immunoassay of Insulin" to the Canadian Society for Clinical Investigation, as a member of the panel on immunoassay of peptide hormones.
- Professor J. C. MASON, on "A Chebyshev Method for the Numerical Solution of the One-Dimensional Heat Equation" at the 1967 National A.C.M. conference, Washington, D.C.
- Professor B. K. MATILAL, on "The Law of Contraposition and Dinnāga's Logic" to the Institute for Advanced Study in Philosophy, Benares Hindu University; on "The Interpretation of Nyāyasūtras 1.1.5 and 2.1.37-38" to the twenty-seventh International Congress of

- Orientalists, Ann Arbor; on "Gaṅgeśa on the Concept of Universal Property" to the third International Congress for Logic, Methodology and Philosophy of Science, Amsterdam; on "Some Problems of Indian Logic" to the Pennsylvania Philosophy Club, University of Pennsylvania.
- Dr. Y. MATUK, on "Properties of a Protein Synthesizing Cell-free System obtained from Beef Corneal Epithelium" to the Canadian Federation of Biological Societies at Kingston.
- Professor S. R. MAXWELL, on "Some Problems Inherent in the Attempt to Professionalize Management Practice" to Regional Management, Prairies Region, Canadian National Railways, in Winnipeg; on "Some Realities and some Myths in the Process of Management Professionalization" to the vice-president and senior management of the Great Lakes Region, Canadian National Railways; on "Theory and Practice in Management Development: A Case Study" at the twelfth annual conference, Association of Canadian Schools of Business.
- Professor K. O. MAY, on "From Counting to Abstract Algebra" to the Illinois Council of Teachers of Mathematics, Urbana.
- Dr. J. H. McANDREWS, on "Late Quaternary Environmental History of the Northern Great Plains" at the Plains Archaeological conference, University of Minnesota; on "Late Pleistocene Environmental Change and Mammal Extinction" at Cornell University.
- Professor D. J. McCALLION, on "Primary Organization in the Avian Embryo" at the International Conference in Embryology in Interlaken; on "Immunoembryology" at the Free University of Berlin and at the University of Helsinki.
- Dr. P. D. McCLURE, on "The Hemophiliac and his Genes" to the Kitchener Auxiliary of the Ontario chapter, Canadian Hemophilia Society; on "Hemophilia - The Future" to the Ontario chapter, Canadian Hemophilia Society; on "Haemorrhage in Newborn Infants with Respiratory Distress Syndrome" to the Canadian Paediatric Society, Saskatoon.
- Professor J. K. McCONICA, on "Reformation and Aggiornamento" at Marionopolis College, Montreal; on "The Reformation Revisited" at the annual meeting of the Canadian Catholic Historical Association.
- Dr. CLEMENT McCULLOCH, on "Why Filtering Blebs Fail" to the Section of Ophthalmology, New York Academy of Medicine; on "The Surgical Bleb - when it Succeeds and when it Fails" to the Minnesota Academy of Ophthalmology and Otolaryngology; on "Elasticity of Sutures, particularly Fine Sutures" to the second International symposium on Microsurgery of the Eye, Burgenstock, Switzerland.
- Dr. E. A. McCULLOCH, on "The Significance of Stem Cell Assays in Man and the Mouse" to Mount Sinai Hospital, New York; on "Control of Hemopoiesis at the Cellular Level" at New York University; on "Hematopoietic Precursors" to the Tissue Culture Association, San Juan, Puerto Rico; on "Interrelationships between Hemopoietic Precursor Cells" to Christie Hospital and Holt Radium Institute, Paterson Laboratories, Manchester; on "The Capacity for Differentiation of Hemopoietic Stem Cells" to Eidg. Technische Hochschule, Laboratorium für Molekularbiologie Chemischer Richtung, Zürich; on "Virus Induction of Cancer" and on "Heterogeneity in Tumor Cell Populations" at Queen's University; on "Studies of the Control of Erythropoiesis at the Cellular Level" to the American Society of Hematology meeting, Toronto; on "Differentiation in the Immunological System" to the Midwinter Conference of Immunologists, Houston, Texas; on "Stem Cell Assays in Mice and Men" at the M. D. Anderson Hospital, Houston; on "Hemopoietic Stem Cells in Mice and Men" at McGill University; on "Repair of Radiation Injury at the Tissue Level" to the Federation of American Societies for Experimental Biology, Atlantic City; on "Potential for Differentiation of Hemopoietic Stem Cells and its Relation to Regulation" at Rutgers University School of Medicine.
- Dr. F. A. McELROY, on "Kinetic Studies of the Tricarboxylic Acid Cycle" (co-author) to the Toronto Biochemical and Biophysical Society.
- Professor TOM McFEAT, on "An Anthropologist's View of Human Behaviour" to the Royal Canadian Institute summer science programme; on "Small Group Culture" to the eighth annual meeting of the Northeastern Anthropological Association, Hanover, N.H.
- Dr. W. J. McILROY, on "Current Research in Multiple Sclerosis" to the Multiple Sclerosis Society of Canada.
- Dr. J. L. McINTYRE, address to the Radiological Society of North America, Chicago.
- Dr. L. D. McLEAN, on "Student, Teacher and Helpful Computer" at the misc conference, Toronto; on "Computers in Education" at the national conference of Directors of University Extension and to the Etobicoke Board of Education meeting of senior school officials; on "Choosing a Computer for Use in Instruction" at the meeting of Presidents and Registrars of Colleges of Applied Arts and Technology; on "Technology and the Control of Education" at the Canadian Council for Research in Education conference on Education and Technology; on "What Computers Can Do" at the annual meeting of the Canadian Education Association, Regina; on "How I Teach Statistics" at the Phi Delta Kappa national symposium for Professors of Educational Research, University of Maryland; on "Modern Technology in the Education of Migrant Children" at the Bucknell Conference on Learning Problems of the Migrant Child.
- Professor S. McLEAN, on "A Synthetic Approach to the Aspidospermidine Skeleton" at the Natural Products symposium at the University of the West Indies, Jamaica; on "Ochotensine and Ochotensimine" at Michigan State University.
- Professor W. McLEOD, on "Homer and Virgil" to Classics teachers of Toronto (sponsored by

- the Subject Council for Latin of OSSTF); on "Regional Formulas' in Homer and Hesiod" to the annual meeting of the Classical Association of Canada.
- Professor J. A. McNAB, on "Budgetary Control for Hospitals" to the staff of St. Joseph's Hospital, Toronto; on "Managing for Results - A Study of Management by Objectives" to the Atlantic Provinces Hospital Association in Halifax.
- Professor K. W. McNAUGHT, on "The American Influence upon Confederation", a lecture in the Centennial series at St. Francis Xavier University; on "Makers of Modern Canada: J. S. Woodsworth" in the Sudbury Centennial lecture series.
- Professor R. H. McNEAL, on "The Study of the Decisions of the Communist Party of the Soviet Union" to St. Antony's College, Oxford, and to the London School of Economics; on "The State of Stalin Studies" to the Institute for Russian and East European Studies, Glasgow University.
- Professor K. G. McNEILL, on "Research with the Toronto Linac" at the Chalk River Nuclear Laboratories, and at the Kelvin Accelerator Laboratory, Glasgow; on "Radioactivity Hazard in Laboratory Techniques" at the International Conference on Guidelines to Radiological Health in Montreal; on "Arachnoiditis and Cauda Equina Syndromes as a Sequel to Thorotrast Myelography" (co-author) to the Royal College of Physicians and Surgeons of Canada; on "The Photoneutron Reaction in O¹⁶" at the Nuclear Physics conference, Université de Montréal.
- Professor N. T. McPHEDRAN, on "Acute Pancreatitis" and on "Athletic Injuries" to the Essex County Medical Society; on "Athletic Injuries" at the Canadian Forces Hospital, Halifax.
- Dr. R. S. McPHEDRAN, on "Ultrasonic Tomography in Central Nervous System Disorders" to the Royal College of Physicians and Surgeons of Canada.
- Professor R. J. C. McQUEEN, on "Is Regional Planning Necessary?" to the annual convention of the Alberta Hospital Association in Edmonton; on "Scope of Work within the Surgical Suite" to the American Association of Hospital Consultants in Atlanta; on "Regional Planning" to the District convention of the Ontario Hospital Association in Ottawa.
- Dr. D. L. McRAE, on "The Skull: the Mirror of the Brain", the Wilder Penfield Lecture at the American University in Beirut, Lebanon; on "The Role of Radiology in the Management of the Head Injured Patient" to a symposium on Head Trauma at the Middle East Medical Assembly; an address to the 3rd Canadian Congress of Neurological Sciences, Vancouver.
- Professor R. F. McRAE, on "The Meanings of Innateness in Descartes" to the Descartes Workshop at the University of Waterloo (2 lectures).
- Professor J. C. MEAGHER, on "The Law, the Prophets, and the Development of Peoples" to the symposium Populorum Progressio and the Twentieth Century in Rochester, N.Y.; on "Liberal Arts: Critique and Prognosis" to the conference on the Liberal Arts and the Twentieth Century Cultural Revolution, Chicago; on "The Liberal Arts as Foundation for the Undergraduate Major" and on "The Place of the Fine Arts in a Liberal Arts Curriculum" to the faculty of Elizabethtown College, Pa.
- Dr. R. M. MEASURES, on "A New Approach to Localized Diagnostics" at the eighth International Conference on Ionization Phenomena in Gases in Vienna.
- Dr. H. E. MEEMA, addresses to the Conference on Progress in Methods of Bone Mineral Measurement, National Institute of Health, Bethesda, Md.; to the Symposium Ossium of the European Association of Radiology, London; American Geriatric Society, New Orleans; symposium of the Section of Geriatrics, Ontario Medical Association.
- Dr. V. B. MEEN, on "The Crown Jewels and their Part in the History of Iran," a lecture during Iranian Cultural Week sponsored by the Department of Islamic Studies, McGill University, and the Iranian National Oil Company; on "The Darya-i Nur Diamond and the Tavernier 'Great Table'" to the Canadian Gemmological Association; on "The Crown Jewels of Iran" to the Rochester Academy of Sciences.
- Professor P. P. M. MEINCKE, on "Effect of Acoustic and Electromagnetic Pulses on Josephson Voltage Current Characteristics" (co-author) to the symposium on Sonics and Ultrasonics, at Vancouver; on "Linear Magnetostriction of Paramagnetic Metals" to the American Physical Society, Chicago.
- Professor D. F. METTRICK, on "Food Requirements in the Cestodes" to the Department of Zoology, University of Guelph; on "*Syndesmis franciscana*, a Predacious, Parasitic Turbellarian" to the Parasitological Society of the Universities of Ontario.
- Professor L. MEZEL, on "Computer Graphics and Computer Art" to an invited audience at the National Film Board of Canada; on "The Uses of Computer Graphics in Museums" at the conference on computer applications in Museums at the Metropolitan Museum of Art, New York; on "Digital Plotting and Computer Graphics", a half-day course to a group of instructors at the Ryerson Institute of Technology.
- Professor W. MICHELSON, on "From Religious Movement to Economic Change: The Grundtvigian Case in Denmark" at the Canadian Sociology and Anthropology Association meetings; on "Potential Candidates for the Designers' Paradise: A Social Analysis from a Nation-wide Survey" at the American Sociological Association meetings; on "The Physical Environment as a Mediating Factor in School Achievement" to the annual meeting of the Canadian Sociology and Anthropology Association in Calgary; on "Urban North America: The Social Problems to be Faced by Planners in the Next Thirty Years" to the annual meeting of the Town Planning Institute of Canada.

- Mr. R. G. MILLER, on "Methods of Cell Separation" at McGill University.
- Professor W. A. MILLER, on "Anisotropy of Solid-Liquid Interfacial Energies in Metals and Alloys" at the University of Sheffield and at the sixteenth Canadian Metal Physics conference, Université Laval; on "Growth Forms and Equilibrium Shapes of Crystals in the Melt" (co-author) at the joint conference on the solidification of metals, Brighton, England; on "Anisotropy of Interfacial Free Energy in some Hexagonal Close-packed Metals" (co-author) to the symposium on gas bubbles in solids at the 97th annual meeting of the American Institute of Mining, Metallurgical and Petroleum Engineers.
- Dr. J. E. MILLIGAN, on "Vasomotor Responses in the Hind limb of Newborn Calves" to the Canadian Federation of Biological Societies; on "Neural Control of Pulmonary Circulation in the Foetal Lamb by a Cross-circulation Technique" to the American Heart Association, San Francisco; on "Vasomotor Responses in the Hind limb of the Foetal Lamb" to the Canadian Society of Clinical Investigation; on "The Effect of Pretreatment with Hyperbaric Oxygen on the Response to Anoxia and Survival on Resuscitation in Newborn Rabbits" to the Society of Obstetricians and Gynaecologists of Canada.
- Professor J. B. MILNER, on "The Basis of Modern Planning Legislation" to a seminar of senior officials of the Bahamas Government in Nassau.
- Professor HUMPHREY MILNES, on "The Role of Puppy Love in the Composition of the Minnesang" to the annual meeting of the Canadian Association of University Teachers of German, Carleton University; on "The Minnesinger and the Court" to the first regional seminar, Centre for Medieval Studies, University of Toronto.
- Dr. A. D. MISENER, on "Differences and Similarities in the Physical Behaviour of the Great Lakes" to the Conference of Mid-West Universities in Wisconsin on system analysis of the Great Lakes; on "Water Pollution in the Lakes" to the Association of Professional Engineers of Ontario, Willowdale-Thornhill chapter; on "Research for the Management of the Water Resources of the Great Lakes" to the Great Lakes Commission meeting, Sault Ste. Marie.
- Dr. R. W. MISSEN, on "The Role of Isomers in Chemical Equilibrium" and on "Learning by Analogy: The Restaurant as a Model Catalytic Reactor" at the University of California, Berkeley; on "The Conditions for Stability of Falling Films subject to Surface Tension Disturbances" at the University of California, Berkeley and Davis.
- Dr. C. A. F. MOES, on "Malnutrition caused by Dietary Treatment of Phenylketonuria" (co-author) to the American Society for Paediatric Research.
- Professor J. W. MOFFAT, on "Topics in Strong and Weak Interactions" at the fourth elementary particle physics symposium at the Theoretical Physics Institute, University of Colorado; on "Axial Charge Equal Time Commutation Relations" and on "High Energy Scattering and Regge Poles" at the Heidelberg International conference on elementary particle physics; on "Sum Rules in Strong and Weak Interactions" at Bonn University; on "Current Problems in Strong and Weak Interactions" at the Institute of Theoretical Physics, Rijks-universiteit, Utrecht; on "High Energy π -N Scattering and the Regge Pole Quark Model" at the annual CAP conference on high energy physics at Carleton University; on "Fundamental Properties of Strong and Weak Interactions" at the Department of Physics, University of Alberta; on "Present Status of High Energy π -N Scattering and the Regge Pole Model", a colloquium at Syracuse University; on "Charge-Exchange π -N Scattering, ρ -Dominance and Form Factors" at Purdue University; on "Theory of Gravitation and Symmetry Violation" at a conference on gravitational theory and relativity at the University of Windsor.
- Dr. H. MOGHADAM, on "Hearing Loss, an Important Problem in Child Health" to the fifty-ninth annual meeting of the Canadian Public Health Association.
- Dr. J. W. MOHR, on "Pedophilia and Exhibitionism" to the Maryland Association of Judges of the Court of Limited Jurisdiction; on "A Research Approach to Sexual Deviance" to the Department of Psychiatry, University of Maryland; on "Phenomenology of Sexual Behaviour" to the Sheppard and Enoch Pratt Hospital, Towson, Md.; on "Sexual Offenders - What Treatment Possibilities?" (panel) at the American Psychiatric Association annual meeting.
- Professor J. S. MOIR, on "The Roots of Canadian Disestablishment" to the joint session of the American Historical Association and the American Society of Church History.
- Dr. H. MOLDOFSKY, on "Emotional Issues in Rheumatoid Arthritis" to the Royal College of Physicians and Surgeons of Canada.
- Professor J. A. MOLINARO, on "Ariosto and the Seven Deadly Sins" at the twenty-first University of Kentucky Foreign Language Conference at Lexington.
- Professor N. F. MOODY, on "A New Three-Electrode Impedance Probe having Clinical Applications" (co-author) at the international electronics conference, Toronto; on "The Engineer in Medicine" to the meeting "The Engineer in ..." held by the Engineering Institute of Canada at Toronto.
- Professor S. MOOKERJEA, on "Fatty Liver" at a symposium organized by the Department of Medicine, University of Tokyo, and Hoechst Pharmaceuticals, Tokyo; on "Lipoproteins and Fatty Liver" in Nutrition Research Laboratories, Indian Council of Medical Research, Hyderabad, and in the Physiology Department, Calcutta University; lecture to the members of the Biochemistry Department, Nagpur University, India; on "Mechanism of Fatty Liver in Choline Deficiency" at the Institute of Child Health, Calcutta; on "Impairment of Glycoprotein Synthesis in Choline Deficient Rats" to the Glycosaminoglycan-Glycoprotein

- group at the State University of New York, Buffalo; lecture at the Federation of American Societies of Experimental Biology, Atlantic City.
- Professor W. W. MOORHOUSE, on "The Role of Organisms in the Origin of Iron Formation" to the Geological Society of South Africa, Pretoria branch, and to the Department of Geology, University of Adelaide; on "Inclusions in the Marginal Intrusions at Strathcona Mine, Sudbury, and their Significance" to the Geological Society of South Australia, Adelaide branch; on "Comparison of the Textures of Archean and Recent Volcanics" to the Department of Geochemistry, Australian National University; on "New Light on Animikie Algal Structures through Darkfield Illumination" to the Institute of Lake Superior Geology.
- Dr. J. MORCH, on "An Evaluation of the Xenon Constant Infusion Method for Measuring Mitral Regurgitation" to the American Heart Association meeting in San Francisco; on "Cardiac Homeostasis" to the Royal College of Physicians and Surgeons of Canada.
- Professor T. P. MORLEY, on "Giant Intracranial Aneurysms" to the annual Canadian congress on neurological sciences and to the Society of British Neurological Surgeons / Neurosurgical Society of America joint meeting in New York City; on "The Failure of Radiation Therapy to Prolong Survival Time in Gliomas" to the annual scientific meetings of Ontario Cancer Treatment and Research Foundation and American Association of Neurological Surgeons.
- Dr. W. J. MOROZ, on "Plume Rise and Dispersion near Lake Ontario" (co-author) to the fall meeting of the Ontario section of the Air Pollution Control Association in Toronto; on "Criteria and Control of Airborne Discharge from Industry" and on "Air Quality Criteria as related to Municipalities" at the Ontario Pollution Control conference, Toronto; on "Educational Requirements and Research Findings in Dispersion from Tall Stacks" to the American Society of Heating, Refrigerating and Air Conditioning Engineers, Columbus, Ohio.
- Professor G. L. MORRIS, on "International Law, National Tribunals and the Rights of Aliens" to the American Society of International Law regional meeting, Syracuse.
- Professor LUCIEN MORRIS, on "Changing Concepts of Ventilation in Anaesthesia" to the section on anaesthesia of the Academy of Medicine, Hamilton.
- Mr. D. J. MORRIS, on "Participation of Electronically Excited Iodine Molecules in Atomic Recombination Reactions" to the joint meeting of the American Physical Society, la Sociedad Mexicana de Fisica and the Canadian Association of Physicists at Toronto.
- Mr. W. A. G. MORSINK, on "The Use of Native Trees in Landscaping" (4 lectures) to the Forestry Foremen's conference of the Ontario Hydro.
- Dr. C. B. MORTIMER, on "Photocoagulation of Unusual Retinal Lesions" to the section of ophthalmology, New York Academy of Medicine.
- Professor M. A. MOSCARELLO, on "Polypeptides in Cerebral Myelin from Normal Humans and Patients Dying with Multiple Sclerosis" (co-author) to the American Academy of Neurology, Chicago.
- Dr. H. Z. MOVAT, on "The Kinin System and its Activation by Antigen-Antibody Aggregates" at a symposium on the acute inflammatory reaction at the meeting of the American Association of Pathologists in Chicago; on "*In vitro* Release of Permeability Factors and a Slow Reacting Substance from Phagocytosing Leukocytes" and on "Activation of the Kinin System by Ag-Ab Aggregates" to the Federation of American Societies of Experimental Biology at Atlantic City.
- Professor J. E. MULLENS, on "Post Bulbar Peptic Ulceration of the Duodenum" to the Canadian Association of Gastroenterology.
- Dr. B. MURDOCK, on "A Fixed-point Model for Paired Associates" to a Cognitive Processes seminar at Kansas State University; on "Recent Developments in Short-term Memory" at Pennsylvania State University.
- Dr. E. G. MURPHY, on "Manifestations of Duchenne Muscular Dystrophy in Carriers" to the International Congress of Neuro-genetics, Montreal.
- Dr. J. D. MYERS, on "Where the Hell are we?" and on "The Teacher as 'Uncle Tom'" to the University League for Social Reform.
- Professor S. NAGATA, on "Hopi Factionalism and the Pahana Legend" at the Faculty seminar, Department of Anthropology, University of Toronto; on "Political Socialization of the Hopi 'Traditional' Faction" at the eighth Northeastern Anthropological Association meeting, Hanover, N.H.; on "Accommodative Context of Moenkopi Factionalism" at the 1968 Central States Anthropological Society and American Ethnological Society, Detroit; discussion on Robin Ridington's paper, "The Medicine Fight: An Instrument of Political Process among the Beaver Indians" at the 1968 Canadian Sociology and Anthropology Association meeting in Calgary.
- Professor J. G. NAIRN, on "Incompatibilities in Pharmacy" at an Ontario College of Pharmacy seminar.
- Professor A. J. NALDRETT, on "Melting Relations in a Portion of the System Fe-S-O and the Crystallization of Sulfide-oxide Ore Magmas" at the annual meeting of the Geological Society of America, New Orleans; on "High Temperature Phase Relations in the Fe-S-O System and their Bearing on the Temperature of Introduction and Composition of Sulfide Ore Magmas" at the symposium on experimental methods in ore genesis at the University of Western Ontario, and to the Department of Geology, Texas Technological College; on "Experimental Studies of the Fe-S-O System and their Bearing on the Emplacement

- of Ore at the Strathcona Mine, Sudbury" at the Ottawa Geochemical discussion group; on "The Role of Sulfurization in the Genesis of Iron-nickel Sulfide Deposits of the Porcupine District, Ontario" to the Department of Geology, Texas Technological College; on "Phase Layering and Cryptic Variation in the Sudbury Nickel Irruptive" at the CIM-GAC-MAC annual meeting, Vancouver; and to the Departments of Geology of Johns Hopkins University and of Laurentian University.
- Dr. H. G. NARROL, on "The Application of Behavior Modification Techniques to the Problems of Retarded Children" to the Ontario Association of Teachers of Retarded Children; on "The Application of Behavior Modification Techniques to Children in the Nursery School" to the Toronto Nursery Education Association; on "The Application of Behavior Modification Techniques to Speech and Hearing Problems in Severely Disturbed Preschool Children" to the Ontario Speech and Hearing Association.
- Professor E. P. NEUFELD, on "Current Economic Stabilization Problems and Policies in Canada" to the second annual symposium on economics, Loyola College, Montreal; on "The State of the Nation's Economy" to the annual convention of the Canadian Farm and Industrial Equipment Institute, Montreal.
- Dr. R. NINOMIYA, on "Metabolic Control of Glucose Homeostasis", the invited lecture at the symposium on progress in diabetic research held by the Japan Diabetic Society.
- Professor H. K. NISHIO, on "A Comparative Analysis of the Soka Gakkai and Rissho Koseikai" to the Asiatic Society of Japan in Tokyo.
- Professor G. NORRIS, on "Linnaean Concepts of Classification and the Taxonomy of Dinoflagellate Cysts and Thecae" at the Santa Catalina conference, Geochronology Laboratories, University of Arizona.
- Mr. T. I. OBIAGA, on "Kraft and Polysulphide Pulping of a Nigerian Tropical Wood" (co-author) at the annual meeting of TAPPI in Montreal.
- Professor M. J. O'BRIEN, on "The Myth of the *Protagoras*" to the University of Toronto Greek Philosophy Seminar.
- Professor P. J. O'DONNELL, on "Electromagnetic Form Factors" at the University of Glasgow.
- Professor J. R. O'DRISCOLL, on "The Liberal Arts in the Twelfth Century" to the fourth international congress of mediaeval philosophy at the University of Montreal.
- Professor R. O'DRISCOLL, on "Yeats's Vision of History" and on "Yeats's Development as Poet" (a series of ten seminars), at the Yeats International Summer School, Sligo, Ireland; on "The Second Coming" at Irish Studies seminar, University of Toronto; on "The Canadian Inter-University Seminars in Irish Studies" at the annual American Committee of Irish Studies meeting.
- Dr. M. A. OGRYZLO, on "Evaluation of Laboratory Data in Rheumatic Disease" to the Academy of Medicine; on "Interpretation of Serum Protein Abnormalities" to the Canadian Forces Hospital; on "Vasculitis" to the Medical Alumni Association, University of Toronto; on "Renal Factors in the Production of Hyperuricemia" to the Interurban Arthritis Group, Cleveland, and the American Rheumatism Association, Seattle.
- Sister OLGA, on "Racine: Yesterday and Today" in connection with the Racine Exhibit prepared by the Bibliothèque nationale de Paris, at the Toronto Public Library.
- Dr. W. A. OLIVER, on "Benjamin Constant et la hantise du temps" to l'Association des professeurs de français des universités canadiennes at Calgary.
- Dr. B. C. ORCHARD, on "Criminal Responsibility" and on "Fitness to Stand Trial and Insanity under Code" to the Crown Attorneys' Association of Ontario.
- Dr. D. OSABA, on "Influence of the Thymus on the Precursors of Antigen-sensitive Cells" at the annual meeting of the Canadian Society of Clinical Investigation; on "The Thymus and Autoimmune Diseases" to the Department of Continuing Medical Education, Queen's University; on "The Thymus and Immunity" at the Department of Pediatrics, McMaster University.
- Provost D. R. G. OWEN, on "The Death of God" at Champlain College, Trent University; on "The Recent History of God" at Glendon College, York University.
- Reverend J. OWENS, on "The Aristotelian Universal" at the University of Waterloo; on "Teleology of Nature in Aristotle" to the Metaphysical Society of America, University of Southern California.
- Dr. J. B. OWEN-THOMAS, on "Gas Exchange in a Lung Analogue and in Infants in response to Varying Patterns of Intermittent Positive Pressure Ventilation" (co-author) to the Canadian Federation of Biological Societies, section on Physiology; on "A Clinical Respirometer for Neonates" (co-author) to the American Pediatric Society.
- Professor J. A. PAGE, on "Electrochemistry of Ruthenium (II) Nitrogen Complexes" at the cic conference in Vancouver.
- Dr. R. H. PAINTER, on "Purification of Erythropoietin from Anaemic Sheep Plasma by Gel-filtration" (co-author) to the Canadian Federation of Biological Societies in Montreal.
- Professor R. PAKULA, on "DNA Uptake by Transformable Bacteria" to the Department of Zoology, University of Toronto; on "The Genetic and Molecular Approach to Classification of Bacteria" and on "Problems in Bacterial Transformation" to the Departments of Microbiology, Université de Montréal and McGill University.
- Professor HERMANN PÁLSSON, on "Some Irish Themes in Old Norse Sagas" to the third international Celtic congress at the University of Edinburgh; on "The Icelandic Sagas and the Critics" at Cornell University; on "The Problem of Free Choice in the Icelandic Sagas" and on "Heroic Poetry" at the University of Manitoba.

- Dr. D. PANTALONY, on "Automation in Haematology" at the Ontario Society of Medical Technologists.
- Dr. F. R. PAPSIN, on "Colposcopy - Yes or No?" to the Society of Obstetricians and Gynaecologists of Canada.
- Dr. C. E. PARK, on "Mitochondrial Lipids of ELD Ascites Tumor Cells" to the American Association for Cancer Research, Atlantic City.
- Professor J. H. PARKER, on "The Evolution of Theory and Practice in the Golden Age Theatre" at Trent University.
- Professor R. B. PARKER, on "The Integrity of the Dramatic Text" at York University.
- Dr. R. M. PARRISH, addresses to the Royal College of Physicians and Surgeons of Canada; Canadian Association of Radiologists, Quebec City.
- Dr. T. S. PARSONS, on "The Nasal Anatomy of Binosternid Turtles" to the Division of Vertebrate Morphology of the American Society of Zoologists.
- Professor G. R. PATERSON, on "Alkaloids - their Discovery and its Significance" in the lecture and graduate seminar series of the Committee on History and Philosophy of Science; on "Faith, Ethics and Drugs" to the Ontario branch of the Canadian Society of Hospital Pharmacists; on "Antitussives" to the Ontario College of Pharmacy seminar.
- Professor J. M. PATON, on "Current Canadian Thinking on Teacher Education" to the Atlantic invitational conference on teacher education at the University of New Brunswick; on "Who should Control Teacher Education and Certification?" the opening address at the invitational meeting on teacher certification of the Canadian Teachers' Federation in Toronto.
- Professor Z. A. PATRICK, on "Some Effects of Air Pollution on Plants" to the Ontario Society of Biologists.
- Dr. G. N. PATTERSON, on "The Role of the Research Institute in University-Industry Co-operation (with special reference to Aerospace Studies)" to the Toronto Branch of the CASI.
- Professor D. A. L. PAUL, on "Current Research with the Toronto Linac" at the University of British Columbia and at the New England Institute for Medical Research, Ridgefield, Conn.
- Dr. W. M. PAUL, on "Hormonal Therapy in the Menopause and Post-Menopause," on "The Acute Abdomen in Pregnancy" and on "The Role of Scalp Sampling Techniques in Labor" to the thirty-seventh annual conference, Dallas Southern Clinical Society; on "Is Scalp Sampling Useful?" the Milton A. Darling Memorial Lecture, Wayne State University.
- Dr. J. W. PEARCE, on "Renal Nervous and Spinal Pathways and the Reflex Regulation of Extracellular Fluid Volume" to the symposium on neural regulation of body fluids, American Physiological Society meeting, Washington, D.C.; on "The Natriuresis of Blood Volume Expansion" to the Department of Physiology, Université de Montréal.
- Professor F. G. PEARSON, on "An Experimental and Clinical Study using a Porous Prosthesis for Reconstruction of Circumferential Tracheal Defects" to the Clinical Cancer Research conference, Lake Couchiching; on "Tracheal Stenosis as a Complication of Tracheostomy" to the Ontario Thoracic Society; on "Tracheal Stenosis complicating Tracheostomy with Cuffed Tube: Clinical Experience and Observations from a Prospective Study" to the Trauma committee, American College of Surgeons, American Broncho-esophagological Association, Hollywood Beach, Fla., and to the Janes Surgical Society meeting, Ohio; on "Complications of Tracheotomy and Endotracheal Intubation" to the Canadian Anaesthetists' Society meeting; on "The Role of Vagotomy and Pyloroplasty in the Therapy of Symptomatic Hiatus Hernia" to the Society for Surgery of the Alimentary Tract, San Francisco.
- Professor A. C. PEGIS, on "St. Thomas and Husserl: Intentionality and Knowledge" and on "St. Thomas and Husserl: Knowledge and Reality" at Marquette University; on "Platonic Forms and Divine Ideas" and on "Theology and the Unity of Mediaeval Studies" at the University of Illinois.
- Professor G. F. PENNAL, instructional course on ankle injuries at the American Academy of Orthopaedic Surgeons.
- Professor J. R. PERCY, on "Photometric Observing in Downtown Toronto" to the General Assembly of the Royal Astronomical Society of Canada at the University of Calgary; on "Models for Beta Cephei Stars" to the National Committee for Canada of the International Astronomical Union at the University of Waterloo.
- Dr. R. L. PERKIN, on "Medical Manpower in General Practice" to the Canadian Medical Association.
- Professor J. M. PERZ, on "Ultrasonics and the Physics of Normal and Superconducting Metals" at the IEEE convention in Toronto.
- Professor M. VERA PETERS, addresses to the Radiological Society of North America; Royal College of Physicians and Surgeons of Canada; the Gordon Richards Memorial Lecture to the Canadian Association of Radiologists, Quebec City; a symposium of the International Society of Lymphology, Miami Beach, Fla.
- Dr. R. A. PHILLIPS, on "The Immune Response as a Model System for Studies on Cellular Differentiation" to the symposium of the International Society for Cell Biology, Gatlinburg, Tenn.; on "Properties of Stem Cells" to the Canadian Society for Immunology; on "Differentiation of the Immune System" to the Department of Molecular Biology, Washing-

- ton University; on "Priorities and Objectives in Cancer Research" to the annual meeting of the Canadian Cancer Society, Sudbury.
- Professor J. V. POAPST, on "Personal Finance: A New Approach" to the Ontario Credit Union Managers' conference.
- Professor J. D. POLL, on "The Hydrogen Molecule" at the University of Guelph.
- Professor ARTHUR PORTER, an address to the 1967 Canadian Conference on Automatic Control at Hamilton; on "Information, Pattern and Enlightenment" at the American Society of Mechanical Engineers, joint Engineering Management conference, San Francisco; on "Man-Machine Interface - a Study in Communication" at the Centre for Communications, Simon Fraser University; on "Technology and Human Sensibilities" at the Department of Fine Arts, University of British Columbia; on "Technology and Education" at the conference of Superintendents of Special Schools, Milton; on "Industrial Engineering at Toronto" at the annual engineering conference, St. John's; on "Culture and Technology in Partnership" at the Ontario Department of Economics and Development Industrial Development seminar; on "The Knowledge Explosion and its Impact on Health Services" at the American College of Hospital Administrators' educational assembly; on "The Use of Models in the Study of Complex Systems," the John Kershman Memorial Lecture, to the Eastern Society of Electro-Encephalographers, New York; on "Systemic Philosophy and Methodology" to the joint meeting of the American Historical Association and the Society for the History of Technology; on "Interfaces in Education" at the OSSTF (District 28) 1968 Professional Development Day, Sudbury; on "The Art of the Systems Engineer" at the Department of Industrial and Systems Engineering, University of Florida; on "Perspectives on Educational Technology" at the computer seminar for Directors of Education, OISE; on "New Techniques in Education" to the Plant Engineers Society; on "Bridging the Cultures" to the Provincial Conference on Women; on "Sociological Implications of Computer Technology" at the Canadian Pension conference; on "The Centrality of Uncertainty" at the joint symposium of the Canadian Institute of Chartered Accountants and the School of Business, Queen's University.
- Professor C. J. PORTER, on "Clinical Chemistry in Canada" at the national meeting of the American Association of Clinical Chemists.
- Dr. R. POS, on "The Use of LSD in Psychotherapy" at McMaster University.
- Professor M. J. M. POSNER, on "Closed Networks of Queues with Time Lags" to the Operations Research Society of America, San Francisco.
- Dr. D. M. POWER, on "Multivariate Analysis of Geographic Variation in Red-winged Blackbirds" at the American Ornithologists' Union meeting.
- Mr. K. PRABHASHANKAR, on "Digital Simulation and Analysis of Power System Dynamic Performance, Part 1: Effects of Synchronous Machine Amortisseur Circuits and Control Mechanisms" (co-author) to the Winter Power meeting of IEEE in New York.
- Professor R. C. PRATT, on "The Role of Ideology in Tanzania since Independence" at a seminar sponsored by the Program of African Studies, Northwestern University; on "The State and University in Tropical Africa: The Tanzanian Experience" to the Committee for the Comparative Study of New Nations, at the University of Chicago; on "Military Revolutions in Africa" to the Loyola College conference on Communism and Revolution in the Afro-Asian World; on "Canadian Universities and the International Community" at the annual meeting of the AUCC; on "The Role of the Cabinet in the Decision-making Process in Tanzania" at the African Studies Center, University of California, Los Angeles.
- Professor J. D. PRENTICE, on "Symmetries, Anti-Matter and the K^0 Meson," the CAP lectures at Laurentian University, at York University, at the University of Guelph and at Trent University.
- Dr. D. N. PRESTON, on "Phosphorylase Deficiency Myopathy" (co-author) to the Academy of Medicine, Toronto.
- Dr. JOAN PRESTON, on "Some Dimensions of Dyadic Oral Communication" to the Psychology Department, Sir George Williams University; on "Communication Efficiency" to the Department of Measurement and Evaluation, OISE.
- Professor F. E. L. PRIESTLEY, on "The Future of the Humanities in the Universities" to a colloquium on the humanities at the University of Western Ontario.
- Miss B. PROCTER, on "Reference Books used by a Music Cataloguer" to a meeting of the New York State chapter of the Music Library Association.
- Dr. K. F. PRUETER, on "The Research and Innovation Decade in Education 1966-67" at the ninth annual conference of the Ontario Educational Research Council, Toronto; on "OISE and Educational Development" to the Elementary School Principals' conference, Peterborough; on "New Developments in Elementary Education" at the Internship Program, Lakeshore Teachers' College, Toronto; the keynote address, "Educational Innovation and Change," at the annual convention of the Oshawa Teachers' Institute; the keynote address on the general subject of educational change in elementary education at the Professional Development Day, George Etienne Cartier Public School, London.
- Professor G. D. QUIRIN, on "The Economic and Financial Outlook" to the Institute of Canadian Bankers.
- Dr. I. C. RADDE, on "Effect of Parathyroid and Thyroid on Hypocalcemia occurring after a Magnesium Load" (co-author) to the third Parathyroid conference, Quebec.
- Reverend J. A. RAFTIS, on "Society and the Individual: the Mediaeval Period" at the annual meeting of the American Historical Association in Toronto.

- Mr. M. RAMAMOORTY, on "Analysis of Synchronous Machine Transients using Phase Parameters" (co-author) at the IEEE Summer Power Convention in Portland, Ore.
- Professor B. RAMASWAMI, on "Serrated Yielding in Aluminium-Magnesium Alloy Single Crystals" to the American Institute of Mining, Metallurgical and Petroleum Engineers at Cleveland.
- Professor A. RAPOPORT, on "Renal Hypertension - Diagnostic Procedures" at the opening of the Dialysis Centre, St. Joseph's Hospital, Hamilton; on "Focal Proliferative Glomerulonephritis" to the American Society of Nephrology in Los Angeles; on "Some Tactical Problems in Hypertension" at the Academy of Medicine, Ottawa; on "Creatinine Clearance and Serum Creatinine in the Assessment of Renal Function" at the annual meeting of the Royal College of Physicians and Surgeons of Canada; on "The Assessment of Kidney Function" in the program of clinically applied basic sciences at Dalhousie University.
- Professor A. M. RAPPAPORT, on "Pathways of Normal Microcirculation in the Mammalian Liver: Microcirculation in the Liver of Choline Deficient Mice Drinking Alcohol" (illustrated with colour film), to the thirty-first Congress and Festival, International Scientific Film Association, Montreal; on "Experimental Venous-occlusive Disease" to the American Association Study of Liver Disease, Chicago; on "Experimental Hepatic Venous-occlusive Disease" to the Ontario Association of Pathologists, Canada Centennial meeting; on "Normal and Pathologic Gross- and Micro-circulation of the Liver" (illustrated by a film on hepatic microcirculation) and on "Ciné-veinographie hépatique et rénale" at the ninth Argentinian Congress of Gastroenterology, Mar del Plata; on "Normal and Pathologic Circulation of the Liver" to the Medical Society of La Plata; on "Normal and Pathologic Micro-circulation of the Liver" to the Department of Internal Medicine, University of Buenos Aires; on "Quantitative Determination of Insulin Output, following an Intravenous Glucose Tolerance Test in the Dog" to la Clinica de las enfermedades del Aparato Digestiva.
- Professor W. H. RAPSON, on "Kinetics of Disproportionation of Chlorous Acid" (co-author) and on "Specific Ion Effects on the Rate of Chlorine Dioxide Formation by the Chloride-Chlorate Reaction" (co-author) at the fiftieth Canadian Chemical Conference; on "Bleaching" to a professional development course on advances in pulp and paper technology; on "New Concepts for Stream Improvement by Recovery of Bleach Plant Liquors from Kraft Paper Mills" at the third Paper Industry Air and Stream Improvement conference in Vancouver; on "Pulp Bleaching" in Bangor, Maine; on "Bleaching Characteristics of Sapwood and Heartwood Groundwoods of Jack Pine and Western Hemlock" (co-author), on "Characterization of Chromophoric Groups in Groundwood and Lignin Model Compounds by Reaction with Specific Reducing Agents" (co-author) and on "Synergistic Effects of Chlorine Dioxide and Chlorine in the Later States of Bleaching" (co-author) at the annual meeting of the TAPPI in Montreal; on "Determination of the Ultra-violet and Visible Spectrum of Lignin *in situ* in Pulp Sheets" (co-author) at the annual meeting of TAPPI in New York; on "Chlorine Dioxide Bleaching of Pulp" in Vancouver.
- Professor A. M. RAUTH, on "The Survival of Mouse L Cells Grown in Different Specific Activities of Tritiated Thymidine" to the Biophysical Society meeting, Pittsburgh.
- Mr. R. J. RAYZAK, on "Parameter Sensitivity of Ordinary Differential Equations" (co-author) at the annual meeting of the American Institute of Chemical Engineers in New York.
- Dr. ELLEN REGAN, on "An Academically Oriented Kindergarten Programme" to nursery school and kindergarten teachers at Queen's University.
- Dr. H. A. REGIER, on "The Potential Misuse of Exotic Fish as Introductions" to the Canadian Committee for Freshwater Fisheries Research in Ottawa; on "Fish as Predators" to the Canadian Society of Wildlife and Fishery Biologists in Guelph; on "Concepts of Species Segregation and Desegregation related to Great Lakes Fishery Management" to the conference on Great Lakes Research in Milwaukee, Wis.
- Dr. B. J. REILLY, addresses to the Canadian Association of Radiologists, Quebec City and London, Ont.; seminar at St. Joseph's Hospital, London, Ont.
- Dr. WELLS RENWICK, on "The Use of Epidural Anaesthesia in Caesarian Section" to the annual meeting of the West African Surgeons, Lagos.
- Dr. N. B. REWCASTLE, on "Reticulo-Microgliomatosis: with special reference to Prognosis" (co-author) to the Royal College of Physicians and Surgeons of Canada; on "Electron Microscopic Study of the Inclusion Bodies in Pick's Disease" (co-author) to the Canadian Association of Neuropathologists in Montreal and to the Academy of Medicine, Toronto; on "Phosphorylase Deficiency Myopathy" (co-author) to the Academy of Medicine; on "The Mammalian Subarachnoid Space and the Fate of Injected Particulate Material" to the Montreal Neurological Society.
- Dr. A. J. RHODES, on "Public Health, 1967" to the Nova Scotia Branch, Canadian Public Health Association at Kentville; on "Rapid Diagnosis of Virus Infections by Electron Microscopic and Microhemagglutination Tests on Clinical Specimens" to the Royal College of Physicians and Surgeons of Canada; on "The Medical Research Council Survey of Departments of Preventive Medicine" to the Canadian Association of Teachers of Social and Preventive Medicine at Vancouver; on "Challenges in Public Health Today" to the British Columbia branch, Canadian Public Health Association; on "Recent Advances in Virology" to the Canadian Public Health Association in Vancouver.
- Professor H. S. RIBNER, on "Acoustic Energy Flux from Shock-Turbulence Interaction" to the joint meeting, Canadian Association of Physicists, American Physical Society and Mexican Physical Society, Toronto; on "The Physics of Jet Noise" to the Ling-Temco-Vought

- Research Center, Dallas, to the Department of Mechanical Engineering, McGill University, to the National Aeronautics and Space Association Lewis Research Center, Cleveland, and to the Catholic University, Washington, D.C.; on "Noise from a Simplified Model of a Supersonic Turbulent Shear Layer" to the seventy-fourth meeting, Acoustical Society of America, Miami Beach; on "Principles of Jet Noise" as part of a University of Tennessee Space Institute short course; on "Classical Radiation and Jet Noise" as part of a University of Virginia short course; on "Jets and Noise," the 1968 W. Rupert Turnbull Lecture, to the Canadian Aeronautics and Space Institute.
- Dr. J. C. RICHARDSON, on "Late Assessment of Brain Injury" to the Montreal Neurological Society.
- Professor J. RIDDICK, on "Education in Chemistry at Scarborough College" (co-author), an Educational Television tape presented at the annual ctc conference in Vancouver.
- Professor E. B. RIDEOUT, on "The Financial Support of Education" at the invitational conference on emerging trends in education sponsored by the Saskatchewan School Trustees Association at Saskatoon; on "Problems of School Administration and Finance in Metropolitan Areas" at the seminar on reorganization of Metropolitan Winnipeg, Manitoba Teachers' Society, Winnipeg; on "Ramifications of the Report of the Ontario Committee on Taxation (Smith Report)" at the annual convention of the Ontario Urban and Rural School Trustees' Association.
- Professor W. D. RIDER, addresses to the Ontario Cancer Treatment and Research Foundation, Lake Couchiching; visiting lecturer at Camp Borden, Ont.; American Radium Society, Miami Beach; Halifax General Hospital; Temple University.
- Dr. F. P. J. RIMROTT, on "Stress Analysis of Extendible Spacecraft Tubing" at the Chalmers Tekniska Högskola, Göteborg; on "Secondary Effects in Pure Bending of Overlapped Thin-walled Tubular Spacecraft Booms" at the Winter annual meeting of the American Society of Mechanical Engineers at Pittsburgh; on "Secondary Effects in the Response of Slit Tubing to Loading" at the seminars in Mechanics series, McGill University; on "Nonlinear Bending Behavior of Slit Thin-walled Tubes" to the Astronautics symposium of the Canadian Aeronautics and Space Institute.
- Professor J. M. RIST, on "Parmenides and Plato's *Parmenides*" and on "Plato: Knave or Fool?" to the B Club, University of Cambridge; on "Stoic Categories and their Uses" at the Institute of Classical Studies of the University of London; on "Suicide: The Stoic Way Out" at the University of Liverpool; on "Zeno and Chrysippus on Human Action" to the Southern Association for Ancient Philosophy meeting at Sidney Sussex College Cambridge.
- Dr. SUSAN RITCHIE, on "Whipple's Disease" (co-author) to the Canadian Association of Pathologists.
- Dr. L. A. ROBB, on "Tetanus Toxoid: Separation of Sensitizing Fraction" at the thirty-fifth annual Christmas meeting of the Laboratory Section, Canadian Public Health Association.
- Dr. C. A. ROBERTS, on "Psychological Aspects of Long-Term Care and Motivation of the Patient with a Long-Term Illness or Disability" at an institute on Long-Term Care sponsored by the Ontario Hospital Association; on "Mental Health and Psychiatric Consultation" at Queen's University.
- Dr. D. ROBERTS, on "Construction of Valid Objective Tests" at Nelson High School; on "Kinds and Construction of Test Items" at a Measurement and Evaluation Workshop of the Ontario Teachers' Federation at Peterborough.
- Dr. J. A. ROBERTS, on "Circular Polarization of Synchrotron Radiation and the Strength of Magnetic Fields in Radio Sources" to the Department of Electrical Engineering, Queen's University.
- Dr. W. G. ROBERTS, on "The Responsibility System" at Professional Development Day, St. Catharines; on "The Changing Educational Scene" to the Institute for Teachers of Nursing, Toronto; on "The Ungraded School" to the Principals and Vice-Principals' Association, Kingston; on "Continuous Progress in the Schools" to the general meeting of Brockville teachers; on "Planning for Change" at the Principals' Workshop, Peterborough; on "A Search for Alternatives" to the Frontenac Teachers' Institute, Sydenham, Ont.
- Professor S. D. T. ROBERTSON, on "Thyristor Frequency Conversion" to the Power Semiconductor symposium, University of Missouri; on "High Speed Solid State Phase Comparison Relays" at the IEEE summer power convention in Portland, Ore.; on "A Variable Low Frequency Inverter using Thyristors" at the second annual meeting of the IEEE Industry and General Applications group in Pittsburgh; on "Control of Thyristor-Machine Systems" to the Power Conditioning section of the NASA Electronic Research Center in Boston; on "Solid State Protection of Power Systems based on Improved System Models" to the Toronto chapter of the IEEE.
- Professor RÉJEAN ROBIDOUX, on "Le roman canadien-français de 1939 à nos jours" to la Faculté des lettres, Université de Montréal.
- Professor E. A. ROBINSON, on "Synthetic Inorganic Chemistry at the University of Toronto" at Moscow University; on "Stereochemistry and Chemical Bonding in Inorganic Molecules" and on "The Structure of University Education in Canada" at Leningrad University; on "Recent Research on Strong Acids as Non-Aqueous Solvents" at the Institute of Inorganic Chemistry, Kiev; on "Spectroscopic and Solution Studies on Strong Acid Solvents" at the University of Ottawa; on "Vibrational Spectra and Bonding in some Phosphorus Compounds" to the fifty-first annual conference of the ctc in Vancouver.
- Professor T. M. ROBINSON, on "A Logical Plan in the *De Anima*" to the Toronto seminar on

- Greek Philosophy; on "Man's Estate: Mimnermus to Machado" to the Classical Society at Trent University; on "The Oxford Plato" to the Philosophy Society at the University of Alberta; on "Vergil and the Rationale of Verse-Translation" to the Classical Society at the University of Western Ontario.
- Professor C. J. ROBSON, the Archibald Grace Memorial Lecture to the Southwestern Surgical Society; on "Results of Radical Nephrectomy for Renal Cell Carcinoma" to the American G.U. Surgeons in Florida.
- Professor J. M. ROBSON, on "John Stuart Mill" (2 lectures) at Prince of Wales College, Charlottetown, as Centennial Professor.
- Dr. G. K. RODGERS, on "Development of the Thermocline in Lake Ontario" to the eleventh conference on Great Lakes Research, University of Wisconsin-Milwaukee; on "Natural Processes and Water Quality Control" (co-author) to the Great Lakes Water Resources conference, Toronto.
- Mrs. P. RODNEY, on "The Development of the Conduction System in the Heart of the Golden Hamster" to the Canadian Federation of Biological Societies.
- Dr. R. C. ROEDER, on "The Absorption Spectra of Quasi-Stellar Objects" to the Department of Physics, Queen's University; on "Comments on the Space Distribution of Quasi-Stellar Objects" to the National Committee for Canada of the IAU at the University of Waterloo.
- Dr. E. S. ROGERS, on "Primitive Weaving" to the Ontario College of Art; on "Current Research and Studies on the Indian Community" to the Canadian Association for Indian and Eskimo Education.
- Mrs. W. L. ROLPH, on "Conflict and Choice: The Sea-Storm in the Poems of Ausiás March" to the Canadian Association of Hispanists in Calgary.
- Dr. ALBERT ROSE, on "Research into Social Aspects of Housing" to the fifteenth annual Ontario Housing conference at Ottawa; on "The Housing Crisis of 1967 and Beyond" at a seminar on Urban Canada sponsored by the United Steelworkers of America; on "The Concerned Majority: A Reaction to the Smug Minority" at the eighth annual meeting of the Grocery Products Manufacturers of Canada.
- Professor E. E. ROSE, on "Religion and the Rise of Civil Disobedience" to the Canadian Society for Church History in Toronto.
- Dr. E. J. ROSEN, on "Behavioural and Emotional Disturbances related to Cerebral Dysfunction" at the annual meeting of the Ontario Psychiatric Association.
- Professor R. A. ROSEVEAR, on "Music Education in Canada" at the University of Canterbury, New Zealand; on "Goals in Music Education" to area music educators in Melbourne; on "The Training of Music Teachers in Canada" to the Conservatorium of Music, University of Melbourne.
- Dr. F. B. ROTH, on "Future Relationships of Hospitals and Health Services" to the District 8 assembly of the American College of Hospital Administrators in Toronto; on "The Thrust of Public Health," the keynote address to the Canadian Public Health Association, Saskatchewan branch, at Regina.
- Professor J. C. RUCKLIDGE, on "Electron Probe Studies of some Canadian Telluride Minerals" at the annual meeting of the Mineralogical Association of Canada; on "Electron Probe Data for some Platinum Metal Minerals" at the annual meeting of the Mineralogical Association of Canada; on "Automation in the Handling of Probe Data" at the spring meeting of the Canadian Probe Users Association, McMaster University.
- Professor W. J. N. RUDD, on "Recent Trends in the Field of Horatian Studies" to the Classical Association of Canada; on "Classical Mosaic" at Carleton University; on "Horace, *Odes* 2.18" at the Conference of the American Philological Association at Boston; on "Beyond Structure: Some Observations on Horace's Odes" to the Institute of Classical Studies in London; on "Coherence in Horatian Lyric" to the Cambridge Philological Society and to a seminar of the Faculty and Students in Leeds; on "Ovid and the Augustan Myth" in Cambridge, to the Classical Association of Scotland, and in Leeds; on "The Place of Moral Judgments in Literary Criticism" to a seminar of the Faculty and Graduate Students in Cambridge.
- Dr. A. P. RUDERMAN, on "Discussion of Economic Aspects of Public Health" at the round table on Social Science and Health Planning of the Milbank Memorial Fund, New York; on "What Every Canadian Public Health Worker Should Know about Economics" at the meeting of the Canadian Public Health Association; on "Health Care and Financial Control" at the joint meeting of the Medical Care and Health Officers' sections of the Canadian Public Health Association.
- Dr. R. L. RUDERMAN, on "Experimental Cholelithiasis" to the Wisconsin Surgical Society.
- Dr. J. L. RUSE, on "Non-Tumorous 'Primary' Aldosteronism not relieved by Glucocorticoid: A New Clinical Entity?" (co-author) to the Royal College of Physicians and Surgeons of Canada.
- Dr. J. L. T. RUSSEL, on "A New Operation for Post-Prostatectomy Incontinence" to the Canadian Urological Association.
- The Rt. Reverend J. J. RYAN, on "The Doctrine of a 'Principatus sollicitudinis omnium Ecclesiarum' in the Eleventh Century Canonical Collections" to the International Congress on the History of the "Sollicitudo omnium Ecclesiarum" at Rome.
- Dr. C. I. SABRY, on "Response of the Pregnant Rat to Variation in Protein Quality" to the Federation of American Societies for Experimental Biology in Atlantic City.

- Professor H. SADDHATHISSA, on "Belief and Faith: Asian Interpretation" at Trinity College, University of Toronto.
- Professor A. E. SAFARIAN, on "Some Welfare Aspects of Foreign Investments" at a Faculty of Economics seminar, York University; on "Task Force Report on Foreign Ownership" at the annual meeting of the Ottawa Political Economy Association.
- Professor C. A. T. SALAMA, on "The Use of a Breadboard Chip in conjunction with Computer Aided Design of Integrated Circuits" at the International Electronics conference, IEEE, Toronto.
- Mr. H. SALAMAT, on "Chlorine Exchange Resins" (co-author) at the seventeenth Canadian Chemical Engineering conference at Niagara Falls.
- Professor R. B. SALTER, addresses to the University of Saskatchewan as the Medical Research Council Visiting Professor; the University of Manitoba (the Gibson Memorial Lecture); University of Mexico, University of Pittsburgh, University of British Columbia, New England Roentgen Ray Society, Georgia Orthopaedic Association, Calgary Orthopaedic Association, St. Louis Orthopaedic Society, Northern Newfoundland Medical Association, Latin American Society of Orthopaedics and Traumatology, American Academy of Orthopaedic Surgeons course on Trauma.
- Dr. I. SALTI, on "Non-Tumorous 'Primary' Aldosteronism not relieved by Glucocorticoid: A New Clinical Entity?" (co-author) to the Royal College of Physicians and Surgeons of Canada.
- Dr. I. SAMAD, on "Comparative Evaluation of Breath Sounds, Fluoroscopy, Chest X-ray, Pulmonary Angiograms and Intravenous R¹³¹ I¹³¹ I¹³¹ Lung Scanning in Chronic Obstructive Pulmonary Emphysema" (co-author) to the Royal College of Physicians and Surgeons of Canada.
- Professor A. E. SAMUEL, on "The Greek Element in Ptolemaic Bureaucracy" to the Classical Association of Canada in Calgary.
- Dr. D. E. SANDERS, addresses to the Division of Post-graduate Medical Education, Dalhousie University, and to the Atlantic Provinces Radiological conference at Dalhousie University; Royal College of Physicians and Surgeons of Canada, Toronto.
- Professor MICHEL SANUILLET, on "La Doctrine du Surréalisme" at l'Université de Montréal; on "Dada and the Scholar" at the symposium in New York sponsored by the Graduate Center of the City University of New York, the Museum of Modern Art, and the International Association for the Study of Dada and Surrealism, in conjunction with the opening of the major exhibition on Dada, Surrealism and their Heritage at the Museum of Modern Art; a series of lectures on various aspects of the Dada and Surrealist movements at the University of Sherbrooke, the National Gallery of Canada, the University of Manitoba, the Winnipeg Art Gallery, the University of British Columbia, the Vancouver Art Gallery, and Memorial University, Newfoundland.
- Professor J. A. SARJEANT, on "The Role of Operations Research in Systems Design" to the Hamilton chapter of the Systems and Procedures Association.
- Mr. M. P. SARMA, on "Analysis of Corona Losses on D.C. Transmission Lines Unipolar Lines" (co-author) at the Winter Power meeting of IEEE in New York.
- Dr. E. F. SAUNDERS, on "Re-entry of Non-dividing Leukemic Cells into a Proliferative Phase" to the American Society for Clinical Investigation.
- Professor J. C. SAVAGE, on "Icequakes on the Athabasca Glacier" to the American Geophysical Union, Washington, D.C.; on "Dispersion of Oceanic Rayleigh Waves" to the annual congress of the Canadian Association of Physicists.
- Professor R. M. SAVORY, on "Persian Nationalism" at the Institute of Islamic Studies, McGill University, in a series arranged to celebrate the coronation of His Imperial Majesty, the Shahanshah of Iran; on "The Evolution of the Safavid State" at a colloquium on the Middle East at Harvard University.
- Professor J. A. SAWYER, on "Econometric Models for Policy Analysis" to the Southern Ontario chapter of the American Statistical Association; on "The Policy-oriented Econometric Models of the Canadian Economy" to the national meeting of the Canadian Operational Research Society in Toronto.
- Professor E. SCHABAS, on "Musical Learning - its Meaning and Implications" at Orff seminar, University of Toronto; on "Pelican Ink and Pestalozzi" at Canadian Music Centre conference, Toronto; on "Contemporary Techniques in Instrumental Instruction" at Inter-American Music Council (Pan-American Union), Medellin, Colombia.
- Dr. D. L. SCHATZ, on "Effects of Oral Contraceptives and Pregnancy on Thyroid Function" to the International symposium on fertility, Toronto; on "Circadian Rhythm of Serum Free Thyroxine and Thyroxine Binding Proteins" to the Canadian Society for Clinical Research, Toronto.
- Professor B. B. SCHIFF, on "Mechanisms of Consummatory Activity and Reinforcement" at Dalhousie University.
- Dr. B. SCHLESINGER, on "The Culturally Deprived Child" to External Aid Teachers going to the West Indies, to teachers of the Duke of York School, Toronto, and to the Toronto Kindergarten Association; on "Changing Family Life Patterns in Canada" to the Registered Nurses' Association, Toronto, and to the East York Social Planning Council; on "The Inner-city Child's Language: Bilingualism in a New Form" to the Toronto Teachers' Language Arts Association; on "The Child in the Inner-city School" to District 7, Toronto Teachers' Convention; on "The Nurse in a Changing Society" to a Graduate Nurses seminar, Toronto General Hospital; on "Health, Sanity, and Strengths in Family Life

- Today" to the annual meeting of the Children's Aid Society, County of Waterloo; on "Introduction to Marriage - Views and Commentary" to the Groves Conference on the Family, Boston; on "The Principal in the Community" to a seminar of principals in North York; on "The Generation Gap" to the British Columbia conference on health and welfare.
- Professor G. H. SCHMID, on "The Reactions of Sulfenyl Halides with Acetylenes" at the Intra-Science symposium on sulfenyl compounds in Santa Monica, Cal.
- Professor R. J. SCHOECK, on "Thomas More and the Italian Heritage of Tudor Humanism" at the fourth congress of Medieval Philosophy at l'Université de Montréal; on "Thomas More and the Law," 3 lectures at Yale University.
- Professor H. G. SCHOOT, on "L'Auxiliaire" at the Tenth International Congress of Linguistics, Bucharest.
- Dr. E. A. SCHÖNBAUM, on "Lipid Metabolism in Cold Acclimation - Effects of Immunosympathectomy" (co-author) to the Cold Physiology conference in Edmonton; on "Thermoregulation" at the Department of Pharmacology, University of Alberta, and at the Regional Primate Research Center in Seattle; on "Some Studies on TSH and LATS" at the Harbor General Hospital, Torrance, Cal.; on "Acclimation to Cold - Pharmacological Explorations" at the Department of Physiological Sciences, School of Veterinary Medicine, University of California, Davis.
- Mrs. M.-L. D. SCHÖNBAUM, on "Long Acting Thyroid Stimulator: Clinical and Experimental Studies" (co-author) at the sixth Acta Endocrinologica congress in Helsinki.
- Professor J. SCHWAIGHOFER, on "Shear Wall Structures" to the Joint Area Committee in Toronto; on "Der Moderne Konstruktive Hochbau" to the vdi-Group, Toronto.
- Dr. D. S. SCOTT, on "Reverse Flow Behind the Reflected Shock in a Multi-Circuit Conical Electromagnetic Shock Tube" at the ninth symposium on Engineering Aspects of Magneto-hydrodynamics jointly sponsored by AIAA, ASME, IEEE and the University of Tennessee Space Institute.
- Professor G. D. SCOTT, on "Density of Randomly Close-packed Spheres" to the congress of the Canadian Association of Physicists in Calgary.
- Dr. J. G. SCOTT, on "A New Look at Evaluation of Teacher Effectiveness" to the meeting of Superintendents, Inspectors, Principals and Vice-Principals of the York Borough Board of Education Principals' Association; on "Appraising our Teaching" to the Ontario Association for Curriculum Development; on "The Research and Training Program at oise" at the Secondary School Principals' course, University of Western Ontario; on "A New Model for Appraising Teaching Outcomes" to the workshop for administrators sponsored by the York Borough Board of Education; on "Contemporary Research on Teacher Effectiveness" to the Vice-Principals and Department Heads of the York Central District High School Board; on "Effective School Board Operation" at the seminar on school board administration, Kingston; on "Professional Preparation for Today's Administrator" to the Inspectors and Principals of the City of Toronto Board of Education; on "The Over-rated Teacher" to the Superintendents, Principals, and Vice-Principals of the Kitchener-Waterloo High School Board; on "Professional Development - New Opportunities for the Teacher" to the staff of Eastern High School of Commerce, Toronto.
- Mr. H. C. SCRIBNER, on "Synergistic Effects of Chlorine Dioxide and Chlorine in the Later Stages of Bleaching" (co-author) at the annual meeting of TAPPI in Montreal.
- Dr. K. G. SCRIMGEOUR, on "Folic Acid, One-carbon Metabolism and Pteridine Cofactors" (3 lectures) to the Department of Biochemistry, University of Alberta; on "Enzyme Kinetics" (4 lectures) to the Department of Chemistry, Trent University; on "Interaction of Fe³⁺ with Tetrahydropteridines" to the Toronto Biochemical and Biophysical Society.
- Dr. P. SEEMAN, on "The Mechanism of Anesthesia" to the British Pharmacological Society; on "Membrane Structure and Function" at Columbia University; on "Recent Advances in Erythrocyte Research" to NRC, Ottawa; on "Membrane Permeability" to the international symposium on erythrocytes and thrombocytes, Vienna.
- Professor R. S. SEGSWORTH, on "Thyristor Converter for Induction Heating" (co-author) at the Industry and General Applications conference in Pittsburgh.
- Dr. A. K. SEN, on "Mechanism of Ouabain Inhibition of Sodium and Potassium-dependent Adenosine Triphosphatase of Guinea Pig Kidney" at the Department of Pharmacology, University of Oslo, and to the Department of Physiology, University of Bangkok.
- Dr. J. S. SENN, on "Hemopoietic Stem Cells from Man Studies *in vitro*" to the Canadian Society for Clinical Investigation.
- Dr. BEN SHAPIRO, on "Group Treatment" to the Western Ontario Association of Social Workers in Psychiatric Settings, at the University of Waterloo; on "Community Organization in Recreation Settings" to the Professional Recreation Guild of Toronto; the summary of the Institute on Crisis Intervention at the Toronto branch of OAPSW.
- Dr. J. M. SHAPLEY, on "In Defence of Code Z.32 - Safe Practice for Hospital Operating Rooms" at a symposium on control of hazards in hospital, Ottawa; on "Hospital Safety" to the meeting of the Surveyors of the Canadian Council of Accreditation in Toronto.
- Dr. D. L. SHAUL, on "Radioisotope Localization of the Placenta and the Management of Antepartum Bleeding" to the American College of Obstetricians and Gynecologists, Indianapolis, Ind.
- Dr. MICHAEL SHEA, on "Complications of Cryotherapy in Retinal Detachment Surgery" to the eighth Pan American Congress of Ophthalmology, Mar del Plata, Argentina; on "Prophylactic and Therapeutic Cryopexy in Retinal Detachment" to the Buffalo Medical Society;

- lectures on various aspects of retinal detachment to the Department of Surgery, Section of Ophthalmology, University of Alberta.
- Reverend M. M. SHEEHAN, on "Ecclesiastical Courts: Current Lines of Investigation" at the sixth Midwest Medieval History conference at Creighton University, Omaha; on "Marriage in Mediaeval Society: A Fourteenth-Century Model" at Queen's University; on "Ius matrimoniale in Anglia, saec. XIV" at the international congress of canonists in Rome (read by Professor L. E. Boyle).
- Dr. E. F. SHEFFIELD, on "Administrative Relations of the University and the Extension Department" to the Institute of University Extension Administration, OISE; on "Financing Universities in Canada" to Pacific Northwest conference on higher education, Salt Lake City; on "A Perspective on CAUSPS" to the Council of Associations of University Student Personnel Services, Calgary.
- Dr. R. SHEININ, on "Membrane Synthesis in Mammalian Cells" at Dalhousie University; on "Studies on the Surface Components of 3T3 Cells" at Washington University.
- Dr. R. J. SHEPARD, on "Physical Fitness in Women Employees of a Departmental Store aged 41 to 69 Years" to the Canadian Association of Health, Physical Education and Recreation at Montreal; on "An Integrated Approach to Cardio-respiratory Performance at Sea Level and at an Altitude of 7,350 Feet" to the Congress on Sports Medicine at Winnipeg; on "Limitations of Linear Regressions for the Prediction of Vital Capacity and Forced Expiratory Volume" to the Canadian Federation of Biological Societies at McGill University; on "International Agreed Procedures for Testing Cardio-respiratory Fitness" to the international seminar on ergometry at Berlin; on "Techniques for the Study of Habitual Activity in the Community" to the third international congress on ergonomics 1967 at University of Birmingham; on "Methodology of Exercise Tests in Healthy Subjects in Cardiac Patients" to the World Health Organization, Geneva; on "Training, Körperliche Arbeit, und Vergrößerung der Lungendiffusion" to Internationales Kolloquium Muskelarbeit und -training at Darmstadt; on "Can Training Increase Pulmonary Diffusion?" to the Medical Research Society at London, England; on "Training and Pulmonary Diffusion" to the Federation of American Societies for Experimental Biology at Atlantic City; on "A Physiological Comparison of Three Forms of Leg Exercise" to the American College of Sports Medicine, Pennsylvania State University.
- Professor D. J. SHERBANIUK, on "Commentary on the Major Recommendations of the Royal Commission on Taxation" to the Institute of Association Executives Ottawa; on "The Changing Face of Taxation" to the joint meeting of the Vancouver Bar Association and the Canadian Institute of Chartered Accountants of British Columbia; on "Agenda for Tax Reform" to the Hamilton Estate Planners' Council in Hamilton; on "Canada's Expenditure System - An Appraisal" to a meeting of the members of Thorne, Gunn, Helliwell and Christenson at Toronto.
- Dr. DOROTHY SHIPE, on "The Perceptually Handicapped Child" at the symposium on the child with special needs, Town Hall meeting, Toronto.
- Mr. P. SILCOX, on "Some Problems of Opposition Leadership in Ontario Provincial Politics" at the Canadian Political Science Association's fortieth annual meeting, Calgary.
- Dr. M. D. SILVER, on "Electron Microscopy" at the meeting of the Ontario Society of Medical Technologists in Toronto.
- Professor L. SIMINOVITCH, on "Studies on Lambda Bacteriophage Development" at St. Thomas's Hospital, London, at the Weizmann Institute, Rehovoth, Israel, and to the Canadian Federation of Biological Societies, Montreal; on "Proliferation and Differentiation of Haemopoietic Stem Cells" at the Weizmann Institute, Rehovoth, Israel; on "Nucleoproteins and Heredity" at the University of Toronto.
- Dr. E. H. SIMMONS, on "A Clinical and Biomechanical Analysis of Supracondylar Fractures of the Elbow" to the Rocky Mountain Traumatology meeting, Aspen; on "Atlantoaxial Arthrodesis using the Gallie Technique" to the American Academy of Orthopaedic Surgeons; on "Anterior Cervical Discectomy and Fusion - A Clinical and Biomechanical Study" to Canadian Orthopaedic Association, and a sound film of the same title to the American Academy of Orthopaedic Surgeons; on "Further Observations on the Technique and Indications for Wedge Resections of the Spine" to the Scoliosis Research Society, Minneapolis; on "Neck Injuries caused by Rear End Collisions" to the American Academy of Orthopaedic Surgeons; on "Pain in the Neck" to the American College of Surgeons.
- Professor J. W. SIMMONS, on "The Location of Public and Institutional Activities in Urban Areas" (co-author) to the annual meeting of the Canadian Association of Geographers, Calgary.
- Mr. P. J. SIMMONS, on "Cyclic Steady-State Diffusion" (co-author) at the annual meeting of the American Institute of Chemical Engineers in New York.
- Dr. W. J. K. SIMPSON, address to the ninth Interamerican Congress of Radiology, Montevideo.
- Professor A. SIREK, on "Plasma Free Fatty Acid Concentrations in Housay Dogs following a Single Injection of Growth Hormone" to the sixth Congress of the International Diabetes Association, Stockholm.
- Professor O. V. SIREK, on "The Effect of Growth Hormone on Plasma Concentration of Free Amino Acids in Diabetic Dogs" to the sixth Congress of the International Diabetes Federation, Stockholm; on "Combined Effects of Growth Hormone and Serotonin on Plasma Amino Acids in Dogs" to the Federation of American Societies for Experimental Biology, Atlantic City; on "Metabolic Studies in Housay Dogs" to the Endocrine Society of the University of Heidelberg.
- Professor H. G. SKILLING, on "Soviet Politics" at a panel discussion of the Russian Institute,

- Columbia University; on "Interest Groups in Soviet Politics" at a faculty seminar on comparative study of communist societies, University of California, Berkeley; on "Group Conflict in Eastern Europe" at a seminar on interest groups in Soviet politics at the Center for Russian and East European Studies, University of Michigan; on "Group Conflict in Communist Europe: The Case of Czechoslovakia" at Princeton University, Committee on Russian Studies; on "Crisis and Change in Czechoslovakia" at Yale University, Programme of Russian and East European Studies; on "Interest Groups in East Europe" at Notre Dame University Committee on International Relations; on "The Party, Opposition and Interest Groups: Fifty Years of Continuity and Change" at the Berlin conference on fifty years of the Soviet Union.
- Professor G. R. SLEMON, on "Power Engineering Education in Canada" at the Institute of Electrical and Electronic Engineers, New York; on "The Environment for Engineering Education" at the conference of engineering department heads, Ottawa; on "Ferromagnetism, some Physical and Analytical Models" at the InterMag Conference, Washington; on "Canadian Research for the Power Industry" at the Canadian Electrical Association, Toronto.
- Mr. J. SMITH, on "Application of Fourier Transforms in Assessing the Performance on an Ultrasonic Holography System" (co-author) at the first International Symposium on Holography, Huntington Beach, Cal.
- Professor J. E. SMITH, on "East Germany Today" at a meeting of the Council on Foreign Relations.
- Professor J. W. SMITH, on "Wall Mass Transfer in Liquid-Fluidized Beds" (co-author) at the seventeenth Canadian Chemical Engineering conference, Niagara Falls; on "A Statistical Analysis of Sphere Distribution in a Particulates Fluidized Bed by Photography" and on "A Statistical Analysis of Sphere Distribution in a Particularly Fluidized Bed" (co-author) at the American Institute of Chemical Engineers meeting, Tampa, Fla.
- Professor L. B. SMITH, on "The Canadian Housing Market" to a seminar at Carleton University; on "A Model of Canadian Housing and Mortgage Markets" at a joint University of Toronto-University of Western Ontario faculty seminar at London; on "Postwar Developments in the Canadian Mortgage Market" at the Financial Markets conference, School of Business, Toronto; on "A Bisectoral Model of the Canadian Housing Market" to a Canadian Policy seminar Harvard University; on "A Bisectoral Model of the Canadian Housing and Mortgage Markets" at the meetings of the Canadian Economic Association in Calgary.
- Professor L. M. SMITH, on "Conventional Expressions of Emotion" to the Philosophy Club, York University.
- Professor R. M. SMITH, on "Sandilya's Doctrine" at the seventeenth International Congress of Orientalists, Ann Arbor; on "The Tenth Book of the Bhagavad Gita" to the Department of Religion, McMaster University; on "Order in Indian Lists" to the American Oriental Society at Berkeley, Cal.; on "Causation in Ancient India; Emanation or Creation?" to the Association for Asian Studies at Philadelphia; on "Aspects of Caste in India" at the University of British Columbia.
- Professor J. E. SMYTH, on "The Public Interest versus Freedom of Contract" to a seminar in the M.B.A. programme at McMaster University.
- Dr. H. A. SMYTHE, on "Treatment of Arthritis" to the Ontario Medical Association.
- Dr. R. M. SOBERMAN, on "Simulation of the Colombian Railroad - Lessons in Model Building" in the Department of Civil Engineering, MIT.
- Professor M. S. SOMMERS, on "Some Aspects of Product Symbolism in the Negro and White Communities" to the annual meeting of the Southern Marketing Association, New Orleans; on "New Developments in the Advertising Curriculum" to the annual meeting of the South-West Social Science Association, Dallas; on "The Use of Product Sorts to Discriminate Class and Caste" to the regular meeting of the American Statistical Association, Southern Ontario Chapter.
- Professor C. SPARLING, on "Phytoplankton of Lake Ontario" to the Fisheries Research Board of Canada, Freshwater Institute, Winnipeg.
- Professor F. E. SPARSHOTT, on "First Steps in the Theory of Practice" to the Philosophy of Practice Session of the International Philosophy Year at Brockport, N.Y.; on "The Author's Intention in the Critical Theory of E. D. Hirsch" at the English Department colloquium at the University of Western Ontario; on "The Philosophy of Art," a series of seminars, to the Philosophy Department, University of Saskatchewan; on "The Mind/Body Scandal" to the Philosophy colloquium, University of Calgary; on "Five Virtues in Plato and Aristotle" to the Department of Philosophy, Ohio State University, and to the Philosophy colloquium, State University of New York, Stony Brook.
- Dr. J. S. SPEAKMAN, on "Combined Glaucoma" to the postgraduate seminar on glaucoma, Kingston.
- Professor J. SPELT, on "The Randstad Holland" at the University of Cologne, Germany; on "Urban Growth in the Netherlands" to the American Association of Geographers, East Lakes Division, University of Windsor, and to the British Columbia Division of the Canadian Association of Geographers; on "Metropolitan Government and its Geographic Implications" to the Department of Geography, University of British Columbia; on "The Ruhr and the Coal Crisis," presidential address to the Canadian Association of Geographers at Calgary.

- Dr. W. J. E. SPENCE, on "Surgical Aspects of Chron's Disease and Ulcerative Colitis" to the Toronto-Buffalo-Rochester Radiological Society.
- Professor I. M. SPIGEL, on "Electrolyte Balance and Drinking in a Reptile" at the eighth meeting of the Psychonomic Society in Chicago.
- Dr. I. H. SPINNER, on "Cyclic Steady-State Diffusion" at the A.I.Ch.E. meeting in New York.
- Professor C. P. STACEY, on "Official History and the War in Vietnam" (comment) to the American Historical Association, Toronto.
- Professor D. A. A. STAGER, on "The Evaluation of Candidates for Admission" to the Ontario University Registrars' Association; on "Student Residences: Are they an Integral Part of the Learning Environment?" at the conference of the Canadian Student Affairs Association in Calgary.
- Professor N. Z. STANACEV, on "Comparative Biosynthesis of Polyglycerophosphatides in Bacteria and in Mammalian Tissue" at le Centre de Neurochimie, Centre national de la recherche scientifique, Strasbourg.
- Professor C. P. STANNERS, on "Cell Structure and Metabolism" to the Gordon Conference, New Hampshire; on "Studies on Translation in Cultured Hamster Cells" to Atomic Energy of Canada, Biology Division, Chalk River.
- Dr. TAYLOR STATEN, on "Adolescent Process" to the Ontario Psychiatric Association; on "Effect of Object Loss and Unsuccessful Mourning on Adolescent Development" to the Ontario Psychoanalytic Society.
- Dr. BETTY W. STEINER, on "An Understanding of Depression - Its Meaning and Management" to the convention of the Ontario Dental Nurses and Assistants Association.
- Dr. G. STEINER, on "Effects of Immunosympathectomy on the Metabolic Response of Adipose Tissue and Liver to Cold-Acclimation" to the Federation of American Societies for Experimental Biology, Atlantic City; on "Endogenous Chylomicronemia following Pancreatectomy" to the Harvard School of Public Health; on "Post-heparin and Lipolytic Activity in Fat induced Hyperlipemia" to the Eastern Section of the American Federation for Clinical Research; on "Effects of Cold Acclimation and Immunosympathectomy on Lipid Metabolism" to the Canada Cold Physiology meeting, Edmonton.
- Mrs. BARBARA STEPHEN, on "Chinese and Western Art" to the Women's Art Society of Montreal at the Montreal Museum of Fine Arts.
- Dr. H. H. STERN, on "A Look at Language Teaching in Britain and Ontario" to the modern language associates of the College of Education, Toronto.
- Professor D. B. STEWART, on "Mechanisms to Concentrate Lithium into Lithium-rich Pegmatites" at the symposium on experimental methods in petrology and ore genesis at the University of Western Ontario.
- Professor D. J. STEWART, on "Adverse Drug Reactions and the Pharmacy Practitioner" to the Ontario College of Pharmacy seminar.
- Professor E. W. STIEB, on "One Hundred Years of Pharmacy Association in Canada, 1887-1967" at the Centennial Historical symposium, Canadian Academy of the History of Pharmacy; on "The Artist Views Physician and Pharmacist" to the historical symposium of the American Institute of the History of Pharmacy, in co-operation with the American Association for the History of Medicine, St. Louis, and to the American Institute of the History of Pharmacy annual meeting; on "History of Pharmacy in Canada's Centennial Celebrations" to the section on contributed papers, American Institute of the History of Pharmacy; on "Drug Control in Britain, 1850-1914" to the conference on the history of drug control sponsored jointly by the National Library of Medicine and the Josiah Macy, Jr. Foundation, Bethesda, Md.
- Professor I. W. J. STILL, on "Photochemical Cycloaddition to a 1,4-Enedione System" and on "Photochemical Reduction of β - and γ -Keto Sulfones" at the fifty-first annual Canadian Chemical Conference in Vancouver.
- Professor BRIAN STOCK, on "A New Approach to the Relation between Symbolic Cosmology and Institutions in the Twelfth Century" at the New York School for Social Research; on "Bernard Silvester's Relation to Twelfth Century Theology and Institutions" at the Warburg Institute, University of London.
- Professor B. P. STOICHEFF, on "Brillouin Scattering" (3 lectures) at the Quantum Electronics Summer School at Steamboat Springs, Col.; on "Lasers and their Scientific Applications" (10 lectures), the inauguration series of the RCA Victor Research Laboratories in Montreal; on "Stimulated Raman Scattering in Diamond" at the third USSR conference on nonlinear optics at Erevan, Armenia; on "Research with Lasers at the McLennan Physical Laboratories" at the Department of Physics, Université Laval; on "Brillouin Spectroscopy with Lasers" at the fourth conference on molecular spectroscopy organized by the Institute of Petroleum Hydrocarbon Research Group in Brighton, England; on "Highlights of Seven Years of Laser Physics" to the Mathematics and Physics Society, University of Toronto; on "The Magic of Lasers" to the University College Alumni, Toronto; on "Light Scattering from Shear Waves in Liquids" at the Debye Memorial Conference, Cornell University.
- Professor A. B. STOKES, on "Mental Health and Psychiatric Disorder," the first Hoffmann-La Roche Lecture, Dalhousie University.
- Professor J. C. STRYLAND, on "Intermolecular Forces and Vibrational Raman Spectra" at the second International High Pressure conference at Mittenwald, Germany.

- Dr. J. T. SUERO, on "Some Aspects of Respiratory Energetics in Pulmonary Emphysema" to the Toronto Gas Club.
- Dr. E. V. SULLIVAN, on "Piaget's Stage of Sensori-Motor Intelligence" at the Department of Psychiatry, McMaster University; on "A Psychological Interpretation of the Structure of Moral Judgments" (co-author) at the OISE conference on moral education, Toronto; on "Stage Theories of Intellectual Development" at the Department of Psychiatry, University of Toronto.
- Professor P. A. SULLIVAN, on "Research in High Temperature Gas-dynamics at the Institute for Aerospace Studies" to the Australian National University; on "Hypersonic Flow Research" to the University of New South Wales.
- Professor G. V. SUMNER, on "The Legion and the Centuriate Organization" to the Oxford Philological Society in Oxford, and to a seminar at the Institute of Classical Studies, University of London, and at the University of Edinburgh; on "The Significance of Velleius Paterculus" at the University of Oxford and at the University of Leeds; on "The Italian Question in Roman Politics" at the School of History, University of Leeds; on "Messalina: Variations on an Enigma" at the Universities of Leeds and Edinburgh.
- Dr. F. A. SUNAHARA, on "Effects of Ouabain on the Interaction of Autonomic Drugs and Prostaglandin on Isolated Vascular Tissue" at the Prostaglandin symposium at Worcester Foundation for Experimental Biology, Shrewsbury, Mass.
- Dr. PETER SWANN, on "Four Hundred Years of Tradition and Revolt in Chinese Painting" at McMaster University, at the Confederation Centre Art Gallery and Museum, Charlottetown, and at the Museum of Fine Arts, Boston; on "Oriental Art" at the Willstead Art Gallery, Windsor; lectures on aspects of Chinese Art at art galleries and universities in Seattle, Portland, Ore., Vancouver and Victoria; on "Chin Nung, 1687-1764: The Individualist View" to the Society for Asian Art in San Francisco.
- Dr. W. E. SWINTON, on "Triassic Vertebrates" to the Biostratigraphy symposium at the University of Western Ontario; on "The Evolution of Man" at St. Mary's College, Halifax, at l'Université de Moncton, at Prince of Wales College, and at the University of New Brunswick, Fredericton; on "Religion in a Scientific Age" at King's College, Halifax, at Prince of Wales College, at the University of New Brunswick, Fredericton and Saint John, as Billings Lecturer of the Unitarian Association of Boston; the Annual Museum Lecture at the University of Colorado; on "Dinosaurs" at the Department of Geology, University of Colorado; on "Darwin as a Medical Student" at the History and Philosophy of Science Institute, Toronto; on "Darwin" and 3 lectures on Chance, broadcasts on the *Ideas* programme of the CBC.
- Dr. P. R. SWYER, on "Gas Exchange in a Lung Analogue and in Infants in Response to Varying Patterns of Intermittent Positive Pressure Ventilation" (co-author) to the Canadian Federation of Biological Societies, section on Physiology; on "Prevention of the Respiratory Distress Syndrome" at the Kingston Academy of Medicine Clinic Day; on "Continuity of Care of High Risk Infants" to the National Conference on Maternal and Child Health, Toronto.
- Reverend E. A. SYNAN, on "Moses ben Maimon" at Emmanuel College, Boston; on "Philosophy, Faith and the Future" at Saint Dunstan's University.
- Dr. N. S. TAICHMAN, on "Potential Mechanisms of Tissue Destruction in Periodontal Disease" at a symposium on microbial agents and the production of oral diseases before the International Association for Dental Research at San Francisco; on "Mechanisms of Tissue Injury during Inflammation and Hypersensitivity" in a symposium before the American Academy of Periodontology in New York.
- Dr. R. R. TASKER, on "Tremorine Tremor as an Electrophysiological Laboratory Model" to the second International Congress of Neurogenetics and Neuro-ophthalmology, Montreal; closed circuit TV panel discussion on Parkinson's Disease at the Clinical Congress, American College of Surgeons; on "Brain Impedance for Localizing Brain Tumours" to the American Academy of Neurological Surgery; on "A Double Somatotopic Representation in the Human Thalamus and its Application in Localization during Thalamotomy for Parkinson's Disease" to the third symposium on Parkinson's Disease, Edinburgh.
- Professor K. W. TAYLOR, on "The Control of Hazards in Hospitals - Inspection, Maintenance and Education" at a symposium of NRC, Ottawa; on "Education and Hospital Maintenance" at a workshop on electrical hazards in hospitals, National Academy of Sciences, Washington; on "Medical Engineering and Biophysics in the Hospital" to the Ontario Hospitals Association (Hospital Engineers annual meeting); on "Image Isocon Camera Tube in Cineradiology" at a symposium of cineradiology, Rochester, N.Y.; on "Image Isocon Camera Tube" to the Association of Radiologists annual meeting, Columbus, Ohio.
- Professor ALI TAYYEB, on "Villages as an Integer in Political Geography" to a seminar on Political Geography at the American Geographical Society, New York.
- Professor R. C. TENNYSON, on "The Effects on Unreinforced Circular Cutouts on the Buckling of Circular Cylindrical Shells under Axial Compression" at the annual Aviation and Space Division conference of the American Society of Mechanical Engineers.
- Professor D. W. THOMPSON, on "Dying for a Smoke" (co-author) to the Centennial conference on health and physical education.
- Dr. J. S. THOMPSON, on "Genetic Control of Arterial Patterns" to the Canadian Federation of Biological Sciences, Montreal; on "Atherosclerosis in Inbred Strains of Mice" to the American Association of Anatomists, New Orleans.

- Dr. M. D. THOMPSON, on "Genetic Counselling in Duchenne Muscular Dystrophy" to the Department of Paediatrics, University Hospital, Saskatoon; on "Genetic Anemias in Mice" to the Department of Biology, Queen's University.
- Dr. H. G. THOMSON, on "Flexor Tendon Glide Study" to the Plastic Surgery Research Council, North Carolina; on "The Effect of Proximal Flexor Tendon Release in Monkey Hand Tendon Repairs" to the Canadian Plastic Surgery Society.
- Professor J. TIMUSK, on "Creep of Portland Cement Paste under Uniaxial and Biaxial Loading" (co-author) to the American Concrete Institute annual meeting.
- Professor D. O. TINKER, on "Phospholipase A. from *Crotalus atrox* venom" to the Department of Biochemistry, University of Alberta.
- Professor J. E. TILL, on "Models of Cellular Differentiation" to the Department of Statistics, University of California, Berkeley; on "Studies on Hemopoietic Stem Cells" to the Gordon Cancer Research conference; on "Cytodifferentiation in the Hemopoietic System" to the American Society of Cell Biology, Denver, and to the Department of Radiology and Radiation Biology, Colorado State University; on "Cellular Differentiation in the Hemopoietic System" at Oak Ridge National Laboratory, Biology Division, and to the University of Texas Medical School, Dallas; on "Effects of Radiation on Cellular Proliferation and Differentiation" in Monaco.
- Dr. B. A. TOBE, on "Enzymes in Clinical Medicine" at the Royal College of Physicians and Surgeons meeting.
- Professor J. M. TOGURI, on "Physical Chemistry of Copper Smelting" to A. D. Little Company, Boston.
- Professor E. B. TOVEE, on "Injuries to Motorcycle Policemen" to the American Association for Surgery of Trauma; on "Blunt Abdominal Trauma" to the American College of Surgeons; on "Motorcycle Injuries" to the Sydenham Society, Toronto; on "Intestinal Obstruction" to the Royal College of Surgeons; on "Two-Team Abdominal-Perineal Resection of Rectum" (film) to Clinical Congress, American College of Surgeons.
- Professor S. J. TOWNSEND, on "Aspects of a Blowdown Subsonic Plasma Tunnel" presented at the twenty-ninth semi-annual meeting of the Supersonic Tunnel Association, us Naval Ordnance Laboratory; on "Does Canada Need a Space Program?" to the Linitzer Society.
- Professor G. S. TRACZ, on "An Integral Equation Approach to the Numerical Solution of Optimal Control Problems" (co-author) to the joint conference on Optimization at the University of Keele; on "Nonlinear Programming and Second Variation Schemes in Constrained Optimal Control Problems" (co-author) at the sixth symposium on mathematical programming, Princeton University.
- Professor L. E. H. TRAINOR, on "Liquid Helium and the Properties of Bose-Einstein Systems in Finite Geometries" at the University of Windsor; on "Moments of Inertia Calculations for the Transuranic Nuclei" at the University of Alberta and at the 1968 congress of the Canadian Association of Physicists, Calgary.
- Dr. O. TRASS, on "Simultaneous Heat and Mass Transfer through Laminar Boundary Layers in Combined Forced and Free Convection" at the seventeenth Canadian Chemical Engineering conference, Niagara Falls; on "Mass Transfer in a Non-uniform Impinging Jet" to the sixty-third national meeting of the American Institute of Chemical Engineers, St. Louis.
- Dr. R. E. TRAUB, on "Effects of Promised Reward and Penalty on Performance of a Multiple-Choice Vocabulary Test" at the convention of the American Educational Research Association, Chicago.
- Professor S. G. TRIANTIS, on "The Place of Foreign Aid in Development Strategy" at the conference on Canadian External Aid organized by the School of International Affairs, Carleton University, and the Canadian Institute of International Affairs; on "Aid to Developing Countries?" at the National Defence College.
- Dr. A. S. TRIMBLE, on "Muscular Subaortic Stenosis" to the American College of Surgeons; on "An *in vitro* Cinematographic Pulse Duplicator Study of Homograft Aortic Valve Function" to the Canadian Cardiovascular Society; on "Valve Transplantation" to the Ontario Medical Association (tv panel).
- Professor Y-F. TUAN, on "Discrepancies between Environmental Attitudes and Behaviour: Examples from Europe and China" and on "Environmental Perception as a Humanistic Study" at the University of British Columbia; on "The Value Image of the City" at Pennsylvania State University.
- Professor E. TULVING, 3 lectures on the general topic of "Organization and Memory" at the NATO Advanced Studies Institute on Short-term Memory, Cambridge, England; on "When is Recall higher than Recognition?" to the Psychonomic Society, Chicago; on "Effectiveness of Retrieval Cues in Memory for Verbal Material" at the University of Minnesota; on "Organization and Memory" at St. Olaf's College, Northfield, Minn.; on "Some Necessary Conditions for Effectiveness of Coding Operations in Human Memory" at Northwestern University and at the University of Western Ontario; on "Organization and Interference" to the American Association for the Advancement of Science; on "The Relation between Coding and Retrieval Processes in Human Memory" at the State University of New York, Stony Brook; on "The Effectiveness of Retrieval Cues" at the State University of New York at Buffalo; on "Coding Processes in Free Recall" to the fifth California conference on verbal learning, University of California Conference Center, Lake Arrowhead.
- Dr. D. A. TURNER, on "Bio-Engineering in Space Medicine" to Athlone Fellows Association

- annual meeting, Toronto; on "Things to come in Clinical Medicine" to the Dewar Club Luncheon (Annual Scientific Program in Orthopaedic Surgery) at Toronto; on "Life Support Systems for Man in Space" to the annual Professional Development Program of the Engineering Institute of Canada; on "Extra-terrestrial Medicine" to the medical staff of Mount Sinai Hospital at Toronto.
- Dr. J. A. P. TURNER, on "The Bacteriological Significance of the Positive Tuberculin Test in Childhood" to the Canadian Thoracic Society, Vancouver.
- Dr. R. E. TURNER, on "Therapeutic Communication with Pedophiles" at the fifth annual conference on addictions and on sexual deviation at the Alex G. Brown Memorial Clinic, Department of Reform Institutions; on "Forensic Psychiatric Services" to the annual meeting, John Howard Society of Alberta, Red Deer; on "Forensic Service, Clarke Institute of Psychiatry" to the Judges of Courts of Lower Jurisdiction and Circuit Court Judges, Maryland; on "Research in Sexual Deviation and Forensic Psychiatry" to the Psychiatric Institute, University of Maryland; on "Study and Treatment of Sexual Deviates" at the Sheppard and Enoch Pratt Hospital, Towson, Maryland.
- Dr. A. D. TUSHINGHAM, addresses on behalf of the Archaeological Institute of America at the Universities of Virginia, North Carolina and Georgia and at the Freer Gallery in Washington; on "Persian Enamels" to the fifth International Congress of Iranian Art and Archaeology in Tehran.
- Dr. K. UDAKA, on "Simple Physicochemical Assay for the Quantitative Assay of Increased Vascular Permeability in Inflammation" to the Canadian Federation of Biological Societies at Kingston; on "Comparative Study of Vasoactive Peptides in Inflammation" to the twenty-fourth International Congress of Physiological Sciences in Washington.
- Dr. J. M. UNDRILL, on "Dynamic Stability Calculations for an Arbitrary Number of Inter-connected Synchronous Machines" at the IEEE Summer Power convention in Portland, Ore. (presented by Professor W. Janischewskyj).
- Professor S. VAN DEN BERGH, on "Optical Observations of the Interstellar Medium" to a group from the Rensselaer Polytechnic Institute, the General Electric Research Laboratories and the State University of New York, Troy; a series on "Galaxies" at the University of California at Berkeley.
- Professor J. VAN KRANENDONK, on "Localized Excitations in Solid Hydrogen" at the international conference on localized excitations in solids at the University of California, Irvine; on "Shielding by Newton's Second Law, and Applications to Induced Infrared Absorption and Nuclear Spin-Lattice Relaxation" at Columbia University; on "Intercollisional Interference Effects in Induced Infrared Spectra" to the meeting of the American Physical Society in Berkeley; on "Intra- and Inter-Collisional Interference Effects in Induced Infrared Spectra" at the Harvard-MIT colloquium and to the eastern regional meeting of the Theoretical Physics Division, Canadian Association of Physicists, Queen's University; on "Theory of Spin-Lattice Relaxation" at the University of Waterloo.
- Dr. J. M. VASTOKAS, on "Art and Anthropology" at the University of Waterloo; on "Primitivism in Art and Society" at Trent University.
- Dr. M. J. VEEN, on "The Specific Influence of 3,5,3'-tri-iodothyroacetic Acid on Oxygen Consumption in Thiamine-deficient Rats" at the American Thyroid Association meeting, Ann Arbor.
- Professor T. VENKATACHARYA, on "Kuravi Rāma's *Daśarūpaka-Paddhati*" at the twenty-seventh international congress of orientalists, Ann Arbor; on "A Difficult Illustrative Verse in the *Daśarūpāvaloka*" at the meeting of the American Oriental Society, Berkeley.
- Dr. C. P. VERNON, on "Results of Surgical Treatment of Carcinoma of the Cervix" to the Society of Obstetricians and Gynaecologists of Canada, Ste. Adèle; on "Progesterone Therapy in Metastatic Endometrial Carcinoma" to the Society of Pelvic Surgeons, Toronto.
- Dr. W. VITZTHUM, on "Master Drawings of the Fifteenth to Sixteenth Centuries" at the University of Saskatoon, Regina.
- Professor J. VLCEK, on "Corrections to Image Co-ordinates in Analytical Photogrammetry" to the 31 Photogrammetric Weeks, Karlsruhe, West Germany.
- Dr. R. VOLPÉ, on "Newer Developments in the Thyroiditis" at the Postgraduate Assembly American Endocrine Society, in Montreal; on "Radioablation of the Thyroid Gland in Graves' Disease with High LATS Assays" at the American Thyroid Association meeting, Ann Arbor; on "Peripheral Interaction of T-3 (Tri-iodothyronine) and T-4 in Oestrogen Treated Human Subjects" (co-author) to the Eastern Great Lakes Chapter of the Society of Nuclear Medicine; on "Pathogenesis of Hyperthyroidism" and on "Studies in Thyroid Function" in a postgraduate lecture series at Queen's University; on "Long Acting Thyroid Stimulator: Clinical and Experimental Studies" (co-author) at the sixth Acta Endocrinologica congress in Helsinki; on "Newer Aspects of Pathogenesis, Diagnosis and Treatment of Hyperthyroidism" to the Ontario Medical Association.
- Professor R. E. VOSBURGH, on "The Extent of Shopping Patterns as an Indication of Types of Buying Decisions" to the marketing section of the Association of Canadian Schools of Business.
- Professor M. VRANIC, on "Matched Rates of Insulin Infusion and Secretion and Concurrent Tracer Determined Rates of Glucose Appearance and Disappearance in Fasting Dogs" to the sixth international diabetes congress, Stockholm; on "Tracer Determined Turnover Rates of Glucose as related to Temporary Diabetes and Insulin Secretion" to the Department of Physiology, Medical Faculty, University of Zagreb, Yugoslavia.

- Professor D. V. WADE, on "The Church and the Urban Situation" at the Graduate Summer Session, University of British Columbia.
- Dr. M. W. WAHLSTROM, on "Computers in the Behavioral Sciences" at the Department of Sociology and Anthropology, University of Guelph; on "Living with the Computer" at Brock University; on "The Influence of Test-wiseness upon Achievement" at the joint session of the American Educational Research Association and the National Council for Measurement in Education, Chicago.
- Dr. M. J. WALCROFT, on "The Production and Management of the Connaught Specific Pathogen Free Guinea Pig Colony" at the annual conference of the Canadian Laboratory Animal Science Association in Montreal; on "The Breeding of Guinea Pigs" and on "Diseases of Guinea Pigs" at the conference organized by the School of Veterinary Medicine, University of California; on "The Veterinarian's Role in the Production of Vaccines for Human Use: Emphasis on Special Problems associated with Captive Primates" at the annual meeting of the Canadian Veterinary Medical Association in Ottawa.
- Dr. P. G. WALFISH, on "Metabolic Interactions and Role of Diazoxide in Glycogen Storage Disease" to the Metabolic Seminar, Hospital for Sick Children; on "Role of Adrenergic Receptors on the Metabolic Effects of Diazoxide" to the Clinical Research Society of Toronto and the Toronto Diabetes Society.
- Professor A. WALKER, on "Education in Chemistry at Scarborough College" (co-author), an Educational TV tape presented at the annual cic conference in Vancouver.
- Professor G. C. Walker, on "Pharmaceutical Product Evaluation" to the Hamilton Pharmaceutical Association; on "Fungous Diseases of Man" in an Ontario College of Pharmacy seminar; on "Product Evaluation" at a workshop session of the Ontario Pharmacists' Association convention; on "The Pharmaceutical Dosage Form" to the London Academy of Medicine.
- Professor K. N. WALKER, on "Family and University Influences on the Political Socialization of Colombian and Uruguayan University Students" at the American Political Science Association annual meeting in Chicago.
- Dr. M. B. WALKER, on "Theory of Kondo Anomalies in Magnetic Resonance" to the CAP Congress at Calgary; on "The Spin-Lattice Relaxation of a Paramagnetic Lattice Defect" at the Eastern Regional meeting of the CAP, Theoretical Division, Kingston, at McGill University, and at McMaster University.
- Dr. V. C. R. WALKER, on "Rabies Today - Man and Animals" at the ninety-fourth annual meeting of the Ontario Veterinary Association in Hamilton.
- Professor S. WALLMAN, an address at the symposium on rural development in Africa convened in London by African Studies Association of Great Britain.
- Professor P. G. WALSH, on "Paulinus of Nola" to the Classical Association of Canada.
- Dr. ARNOLD WALTER, on "Music in the University" at the annual conference of the National Guild of Community Music Schools of the United States in Toronto; on "The State of Music in the Country" at the First Saskatchewan Music Conference at the University of Saskatchewan; on "Television in Music Education" at the Inter-American Music conference in Medellin, Colombia.
- Professor J. R. WARDEN, on "The Mind of Zeus" to the Toronto Classical Association.
- Sister OLGA WARNKE, on "Racine: Yesterday and Today" sponsored by the Toronto Public Library Board in Connection with the Racine Exhibit prepared by the Bibliothèque Nationale of Paris.
- Professor D. B. WATERHOUSE, on "The Thirty-Six Poets in Japanese Art" at the annual meeting of the College Art Association of America, St. Louis; on "Musical Instruments in Japanese Art" at the Freer Gallery, Washington.
- Professor W. R. WATERS, on "The Effect of Employee Pension Plan Membership on the Level of Household Wealth" to the joint University of Toronto/University of Western Ontario faculty seminar in economics in London, and to the Financial Markets conference in Toronto.
- Professor M. H. WATKINS, on "Research on Foreign Ownership in Canada" to the seminar on Canadian Economic Policy, Harvard University; on "Canadian Attitudes toward Foreign Ownership" at the Graduate School of Industrial Administration, Carnegie-Mellon University, at the Amos Tuck School of Business Administration, Dartmouth University, to the Canadian-American Committee, at the annual meeting of the Canadian Gas Association, and at the annual Farmer-Labour-Teachers' conference; on "The Politics of the Multi-national Corporation" to the Canadian Peace Research and Education Association.
- Dr. CICELY WATSON, on "The Training and Use of Educational Planners" at the OISE invitational conference on educational planning.
- Professor MORRIS WAYMAN, on "Bleaching Characteristics of Sapwood and Heartwood Groundwoods of Jack Pine and Western Hemlock" (co-author) and on "Kraft and Polysulphide Pulp of a Nigerian Tropical Wood" (co-author) to TAPPI in Montreal; on "Synthetic Protein by Hydrocarbon Fermentation" to the Research Department, Canada Packers Limited, Toronto; on "Chlorine Exchange Resins" (co-author) to the seventeenth Canadian Chemical Engineering Conference, Niagara Falls.
- Miss JILL WEBSTER, on "Gil Vicente and the Franciscans" to the Midwest Modern Language Association at Purdue University.
- Professor I. WEINBERG, on "The Problem of the Convergence of Industrial Societies: A Critical Look at the State of a Theory" at the meetings of the American Sociological Association.

- Professor JOHN WEINZWEIG, on "Music and Media" with illustrations from his music, at York University.
- Professor J. M. WEIR, on "Trends in Nursing Education" at the annual meeting of the North Waterloo branch of the Victorian Order of Nurses.
- Professor J. WEISHEIPL, on "The Liberal Arts in the Fourteenth and Fifteenth Centuries" to the fourth international congress of mediaeval philosophy at l'Université de Montréal.
- Professor H. L. WELSH, on "Pressure-induced Absorption and the Spectra of Van der Waals Molecules" at a symposium on Translational Spectroscopy; on "Infrared and Raman Spectra of Solid Hydrogen" at the Department of Chemistry, University of Southern California.
- Dr. T. R. WENG, on "Time Factor in the Measurement of Response to Bronchodilator" (co-author) to the Canadian Paediatric Society, Saskatoon; on "Pulmonary Function in Asthmatic Children from Acute Attack to Symptom-free Status" (co-author) to the American Thoracic Society, Houston, Texas.
- Professor J. W. WEVERS, on "The Septuagint Project" to the annual meeting of the American Oriental Society in San Francisco.
- Dr. J. R. WHERRETT, on "Analysis of Glycolipids in the Hurler Syndrome" to the second symposium on Cerebral Lipidoses, Coimbra, Portugal.
- Dr. J. C. G. WHETHAM, on "Results of Surgical Treatment of Carcinoma of the Cervix" (co-author) to the Society of Obstetricians and Gynaecologists of Canada, Ste. Adèle.
- Professor MARY WHITE, on "The Background of the Catilinarian Conspiracy" to teachers of Latin in the schools of the Scarborough area.
- Dr. J. H. WHITESIDE, on "Myometrial Effects of Altered Vascular Pressure in the Castrate Monkey" to the Royal College of Physicians and Surgeons of Canada.
- Professor G. F. WHITMORE, on "Some Radiobiological Studies with Mouse L-Cells" to the Washington Area Radiobiological Association, Washington, D.C.; on "Coding Properties of the Uracil Dimer and Hydrate" to the Biophysics Society, Pittsburgh; on "Repair of Radiation Damage in Mammalian Cells" at Rochester, N.Y.; on "Studies on the Response of Mammalian Cells to Radiation and Various Chemotherapeutic Agents" to the Sloan-Kettering Institute, New York; on "Repair at the Level of the Mammalian Cells" to the annual meeting of the Federation of Experimental Biology, Atlantic City; on "Mammalian Cell Killing by Inhibitors of DNA Synthesis" to the meeting on cell kinetics, Chicago; on "Recovery from Radiation Damage in Mouse L-Cells" at the Roswell Park Memorial Institute, Buffalo.
- Dr. K. J. R. WIGHTMAN, on "Reflections on the Diagnostic Process" (the F. J. H. Campbell Lecture in Medicine) at the University of Western Ontario; on "Chemotherapy of Neoplastic Disease" and on "Adverse Reactions to Drugs" at the fifth annual Clinical Days, Royal Alexandra Hospital, Edmonton.
- Dr. E. D. WIGLE, on "Muscular Subaortic Stenosis and Acute Valvular Regurgitation" at the eleventh annual British Columbia cardiac symposium, Vancouver; on "Medical Considerations in Mitral Insufficiency," on "Idiopathic Hypertrophic Subaortic Stenosis" and on "Aortic Insufficiency: Indications for Operation" to the postgraduate course sponsored by American College of Physicians and the Mayo Clinic, Rochester, Minn.
- Professor J. P. WILKINSON, on "The Too Public Library" to a Trustees Workshop of the Mid-western Regional Library System, Kitchener.
- Professor G. R. WILLIAMS, on "Rate Parameters of the Tricarboxylic Acid Cycle" at the University of New South Wales and at Adelaide, Australia; on "The Kinetics of the Tricarboxylic Acid Cycle" at the Australian National University, Canberra.
- Dr. H. L. WILLIAMS, on "Industry Looks at Science in our Schools," a panel discussion at the Centennial Teachers' conference.
- Professor R. J. WILLIAMS, on "'The Pen of a Ready Scribe': The Role of the Scribe in Ancient Egypt," Presidential address to the Oriental Club of Toronto.
- Professor JOHN WILLIS, on "The McRuer Commission and the Administrator" to the Toronto chapter of the Canadian Institute of Public Administration; on "What I Like and What I Don't Like about Lawyers" at Queen's University (Convocation address).
- Dr. D. R. WILSON, on "Physiology of Diuretic Agents" to the Hamilton Academy of Medicine.
- Professor F. F. WILSON, on "Is Operationism Unjust to Temperature?" to the American Philosophical Association, Western Division, St. Louis.
- Principal J. T. WILSON, on "Continental Drift" at Expo '67, Montreal, at Erindale College inaugural series of lectures on Frontiers of Science, at Prince of Wales College, and at the Department of Geology, Dalhousie University; on "Transform Faults and Magnetic Anomalies in the Ocean Basins" to the fourteenth general assembly of the International Union of Geodesy and Geophysics, Zürich, to the New York Academy of Sciences and to the Science Club, Brown University; on "The Role of Universities in Industrial Research" to the fifth annual meeting, Canadian Research Management Association; on "Examples of Transform Faults and their Role in Continental Displacement" to the UNESCO-IUGS symposium on Continental Drift, Montevideo, Uruguay; on "After Forty Years the Present Position and Future of Canadian Geophysics" to the Canadian Centennial conference on mining and groundwater geophysics; on "China from Inside and Outside" to the Faculty Club, Brown University; on "The Current Revolution in the Earth Sciences" to the Geology Club, McMaster University, and to the Department of Geology and Geophysics, University of Western Ontario; on "World Geology" to the Department of Geology and

Polar Institute, Ohio State University, at Antioch College, to the American Philosophical Society, Philadelphia, at Acadia University, at Case Western Reserve University, and to the Royal Society of Canada.

- Dr. R. WILSON, on "Simulation Analysis in Health Sciences Resource Allocation" to the Association of Hospital Directors of Medical Education, Fall Teaching Institute, Montreal; on "Systems Analysis in Health Sciences Educational Planning" to the Canadian Association of Medical Colleges, Executive Committee, and the Deans of Canadian Medical Schools; on "Systems Analysis of Alternative Designs of a Faculty" to the Organization for Economic Co-operation and Development, Directorate for Scientific Affairs and Educational Management Techniques, Paris; on "Serial Urinary Oestrogen Assays in the Management of the Diabetic Pregnancy" (co-author) to the Society of Obstetricians and Gynaecologists of Canada, Ste. Adèle.
- Dr. S. WILSON, on "Molecular Model of Insulin" (co-author) at the annual meeting of the Canadian Federation of Biological Societies in Montreal; on "Antigenic Loci of Insulin" at the sixth congress of the International Diabetes Federation in Stockholm.
- Professor T. A. WILSON, on "The Six Studies on the Carter Report prepared by the Institute for Policy Analysis for the Department of Finance" at the Financial Markets conference sponsored by the School of Business; on "The Proposed Tax Reforms: Over-all Effects upon Savings, Investment and the Balance of Payments" (co-author) to the Canadian Economics Association annual meeting in Calgary.
- Professor J. W. L. WINDER, on "A Comparison of Alternative Models of Inventory Behavior: A Case Study at the us Copper Industry" at the third annual Far-Eastern meeting of the Econometric Society in Tokyo.
- Miss J. WINEARLS, on "Topographic Series" to the Association of Canadian Map Libraries.
- Professor L. E. WOODBURY, on "The Greek View of the World" at Dartmouth College.
- Professor J. WOODS, on "Predicate-Ranges," on "What Identity Isn't" and on "Reflexivity and Ordered n -tuplehood" at the University of Michigan; on "Negativizing Transformations in English" at the Summer Institute of Linguistics of the Linguistics Society of America at the University of Michigan; on "Simple Ways of Deriving 'Ought' from 'Is'" and on "Definite Descriptions and Propositional Functions" at Trent University.
- Dr. D. G. WOODSIDE, an address to the annual meeting of the European Society of Orthodontics in Monte Carlo.
- Dr. C. R. WOOLF, on "Respiratory Failure" to the King Edward VII Memorial Hospital staff, Hamilton, Bermuda; on "Chronic Obstructive Pulmonary Disease - Medical Aspects," on "The Use of Respiratory Stimulants" and on "Organization and Equipment for a Routine Pulmonary Function Laboratory in Small Hospitals" to the Ontario Division, Canadian Anaesthetists' Society, at Peterborough; on "Active Pulmonary Tuberculosis in a Large General Hospital" and on "The Present Role and Future of Acute Respiratory Units" to the Ontario Thoracic Society in Toronto; on "Intensive Respiratory Care" to the twenty-second annual postgraduate course in clinical cardio-pulmonary physiology, American College of Chest Physicians, in Chicago; on "Comparative Evaluation of Breath Sounds, Fluoroscopy, Chest X-ray, Pulmonary Angiograms and Intravenous R^{131} I₁₃₁SA Lung Scanning in Chronic Obstructive Pulmonary Emphysema" (co-author) to the Royal Society of Physicians and Surgeons of Canada; on "The Respiratory Care Unit at the Toronto General Hospital" at the twenty-second annual clinical day, Niagara Falls Academy of Medicine; on "Treatment of Acute Respiratory Failure," on "The Routine Pulmonary Function Laboratory" and on "Diagnosis and Treatment of Chronic Bronchitis and Emphysema" at Regina General Hospital; on "Respiratory Effects of Chronic Cigarette Smoking in Women" to the Canadian Thoracic Society annual meeting, Vancouver, and to the American Medical Association annual convention, San Francisco.
- Dr. G. WORTZMAN, an address to the Royal College of Physicians and Surgeons of Canada.
- Dr. K. A. WRIGHT, on "The Structure of the Trichuroid Digestive Tract" at the Department of Zoology, University of Guelph.
- Professor G. A. YARRANTON, on "Concepts of Vegetation and the Choice of Analytical Methods" at the Canadian Botanical Association conference in Ottawa.
- Professor K. YATES, on "Cyclic Bromonium Ions" at McGill University, at McMaster University, and at the Dow Chemical Corporation, Midland, Mich.; on "Ultraviolet Spectra of Carbonyl Compounds" at Seton Hall University; on "Electrophilic Addition Mechanisms" at the Zelinsky Institute of the Academy of Sciences, Moscow; on "Ultraviolet Spectra of Carbonyl Compounds" and on "Hydrolysis Mechanisms in Concentrated Acids" to the Department of Organic Chemistry, Moscow State University; on "A Theoretical Study of the Proton Affinity of Small Molecules" (co-author) at the cfc conference in Vancouver.
- Professor P. YATES, on "The Photochemistry of Cyclic Ketones in Solution" at the second symposium on photochemistry of the International Union of Pure and Applied Chemistry, Enschede, Holland, at Simon Fraser, Waterloo and McGill Universities; on "Some Recent Work on Organic Photochemistry" at the Research Laboratories of the Ciba Pharmaceutical Co.; on "The Chemistry of Haplophytine" at the second symposium on natural products of the University of the West Indies, Jamaica; on "Structural Aspects of Photodimerization" to the Lackawanna section of the American Chemical Society and at the State University of New York at Buffalo; on "Applications of Mass Spectrometry to Organic Chemistry" at the Smith, Kline and French Laboratories, Philadelphia; on "Aspects of Organic Photochemistry" as Tour Speaker of the American Chemical Society at the

- Universities of Arizona, Hawaii, Idaho, Montana, Utah, Washington and Wyoming, at Oregon State and Stanford Universities, and at Richland, Wash., Portland, Ore., China Lake, Fresno and Sacramento, Cal., and Idaho Falls, Idaho; on "Structural Aspects of Organic Photochemistry" at Harvard University and University of Ottawa.
- Dr. E. R. YENDT, on "The Use of Thiazides in the Prevention of Renal Calculi" (co-author) to the Royal Society of Physicians and Surgeons of Canada; on "Management of Recurrent Renal Calculi" and on "Polyuria and the Diagnoses of Diabetes Insipidus" at the School of Fine Arts, University of Alberta; on "Renal Calculi and Nephrocalcinosis" to the post-graduate assembly, Endocrine Society; on "Renal Calculi" at Queen's University and at Maisonneuve Hospital, Montreal; on "Hypertension due to Pyelonephritis" to the post-graduate course on Hypertensive Cardiovascular Diseases: Mechanisms and Treatment, American College of Physicians, Montreal; on "Renal Tubular Disorders" at Queen's University; on "Diagnosis of Hyperparathyroidism" at the Albany Medical College of Union University.
- Professor D. YORK, on "Geochronology in Toronto" at the Department of Geology, Oxford University; on "The Evolution of the Earth" in the Department of Physics, University of Waterloo.
- Dr. T. C. YOUNG, JR., on "ROM Excavations at Godin Tepe" to the meetings of the fifth international congress of Iranian Art and Archaeology in Tehran and Shiraz.
- Dr. G. A. ZARB, an address at the meeting of the Canadian Academy of Prosthodontics in Vancouver.
- Dr. A. M. ZIMMERMAN, on "Cell Division in *Tetrahymena pyriformis*: A High Pressure Study" to the Canadian Society of Cell Biologists in Montreal; on "The Effects of High Pressure on Macromolecular Synthesis" to a seminar in the Department of Biology, Oakland University, Rochester, Mich.; on "The Effects of High Pressure on Macromolecular Synthesis in *Tetrahymena*" and on "Cell Division" to a seminar of the Department of Physiology and Pharmacology, Duke University Medical Center; on "High Pressure Effects on Macromolecular Synthesis in *Tetrahymena*" to the Department of Biology, Université d'Ottawa; on "The Effects of High Pressure on Macromolecular Synthesis in *Tetrahymena*" and on "Cell Synchrony" to the Department of Zoology, McGill University; on "Die Wirkungen von Druck und Temperatur auf die makromolekularen Systeme" as invited symposium speaker at the second Marinemedizinisch Wissenschaftlichen Symposium; on "Nuclear Protein Studies of the Isolated Mitotic Apparatus" (co-author) to the Canadian Federation of Biological Societies.
- Professor WALTER ZINGG, on "Membrane Oxygenator for Infants" to the American Society for Artificial Internal Organs; on "Studies on the Relationship between Blood Viscosity and Hematocrit" to the Federation of Biological Societies; on "Studies on Rewarming Shock" to the Defence Research Board of Canada; on "An Approach to Studies on Biorheology" to the University of Texas; on "Some Observations on the Biorheology of Blood" to the Cardiovascular Surgeons' Club.
- Dr. T. T. ZSOTER, on "Adrenoceptive Sites in the Veins" to the International Congress of Angiology, Barcelona, Spain.

PRESIDENT'S REPORT

FOR THE YEAR ENDED JUNE 1968

UNIVERSITY OF TORONTO

PART TWO



President's Report; Part Two

UNIVERSITY OF TORONTO

PRESIDENT'S
REPORT

PART TWO

FOR THE YEAR ENDED JUNE 1968

The President's Report is being printed in three sections this year. Part I contains the Acting President's report; part II contains the reports of the Deans and Directors and staff publications; part III contains the list of benefactions, the tables of the Office of Statistics and Records, and the report of the Executive Vice-President (Non-Academic). Part I is being sent to all persons and institutions on our mailing list. If you do not receive copies of the other two sections and wish to receive them, please address your request to the Office of the President, University of Toronto, Toronto 5, Ontario, Canada.

CONTENTS

FACULTIES AND SCHOOLS

Faculty of Arts and Science	3
David Dunlap Observatory	8
Faculty of Medicine	11
Faculty of Law*	
Faculty of Applied Science and Engineering	16
Faculty of Food Science	17
The College of Education*	
School of Library Science	18
Faculty of Forestry	24
Royal Conservatory of Music	27
School of Graduate Studies	31
Faculty of Dentistry	54
Faculty of Pharmacy	57
Faculty of Architecture, Urban and Regional Planning and Landscape Architecture	58
School of Physical and Health Education	64
School of Social Work	65
School of Nursing	71
School of Hygiene	73
School of Business	77
University Extension	78

THE COLLEGES

University College	81
New College	86
Innis College	92
Scarborough College	97
Erindale College	99
Massey College	100

CENTRES AND INSTITUTES

Centre for Medieval Studies	103
Centre for Russian and East European Studies	106
Centre of Criminology*	
Centre for Industrial Relations	108
Centre for Culture and Technology	109

*This report was not available at the time that the *President's Report* went to press.

Centre for the Study of the Drama	110
Centre for Linguistic Studies	112
Institute of Child Studies	112
Institute for Aerospace Studies	114
Great Lakes Institute	116
Institute of Computer Science	117
Institute of Bio-Medical Electronics	122
Institute for the History and Philosophy of Science and Technology	122
Institute for the Quantitative Analysis of Social and Economic Policy	123
THE LIBRARIES	
The Chief Librarian	127
ADMINISTRATIVE SERVICES	
Office of Admissions	137
Advisory Bureau	138
Housing Service	140
International Student Centre	141
Office of Statistics and Records	143
Office of Student Awards	144
University Health Service	147
University Placement Service	151
STUDENT ACTIVITIES	
Hart House	153
Athletic and Physical Education, Men	154
Students' Administrative Council	155
University Naval Training Division	158
Canadian Officers' Training Corps	159
Canadian Armed Forces (Air)	160
SUPPORTING DIVISIONS	
Connaught Medical Research Laboratories	161
University of Toronto Press	164
PUBLICATIONS	171

Reports



Faculties and Schools

THE DEAN OF THE FACULTY OF ARTS AND SCIENCE

In my report at the end of last session I stated that the health of the Faculty was threatened by the inadequacy of the office and laboratory space available to it, and by the absence of any signs that additional space would be provided in the near future. A year has passed, the number of undergraduate and graduate students instructed by the Faculty has increased, adding both to our responsibilities and to our problems, and still no new buildings are in sight. For the coming year we have had to restrict enrolment at both levels, and in several areas no growth at all is possible. The capital provision made to the University by the province is such that no start on any major academic building for the Faculty will be possible during the year ahead. The Faculty of Arts and Science at the University of Toronto comprises many of the most respected and productive academic departments in Canada. Because of the quality of the staff already present, it is particularly able to attract outstanding scholars from all over the world. During the current year we have failed to make several important appointments simply because we could not offer the sort of research space and facilities that were necessary and, moreover, could not promise such space at any definite time in the reasonably near future.

Our academic achievements this year have been very great indeed, and it is in the best interests of the province, and of Canada, to enable these centres of excellence to expand to an optimum size and to maximum productivity. We have estimated that, to reach this final point in our expansion, approximately 500,000 net square feet of office, study and laboratory space will be required, at a cost of about \$25 million. If an investment of this amount were made over the next five years, the economic and cultural return to the country would be incalculable.

The Undergraduate Programme

The large number of major scholarships awarded each year to graduates of this Faculty is a clear indication of the quality of the programme of instruction and the fact that very good students are attracted to it. Despite this, it was decided two years ago that a complete reappraisal of the programme should be made. The resulting Macpherson Committee report to the President was made public in the fall of 1967, and work began at once on the recommendations it contained. Every departmental and college group considered the desirability and feasibility of those recommendations that affected them, and by the spring of 1968 it was possible for a faculty committee to begin the task of drawing up recommendations to Faculty Council for the implementation of the report. The recommendations of this faculty committee will be presented to Council early next session, and it is clear that the 1969-70 session will see the introduction of a major reorganization of the undergraduate programme. The task is a complex one, since we must not discard those

features for which the present system is rightly famous and yet we must ensure that the new programme is relevant to the present-day needs of the University in all its aspects, and the society that it serves and from which it draws its strength.

An important innovation this year has been the involvement of students in discussions of the teaching programme. As a result of the experience of faculty members in these discussions it was decided by Council that sixteen students should be invited to become full members of Council and several of its committees. Elections from students within groups of disciplines were held this spring, and the Board of Governors has now appointed the sixteen students so elected to serve on Council for the 1968-69 session. Next year's Council meetings, with the Macpherson Report to be debated and the presence of members from this new constituency, promise to be exciting and stimulating events.

Departmental Activities

Despite the frustrations over the building programme and some preoccupation with the proposals for radical changes in our undergraduate programme, the main business of teaching and research has been carried on with the enthusiasm and devotion to excellence that is considered to be normal at Toronto.

The contribution of this Faculty to the total effort of the University can be judged by the statistics, given elsewhere in the *President's Report*, of the number of bachelor's, master's and doctorate degrees awarded to its students, the student enrolment in all these programmes, the increasing number of post-doctoral fellows attracted to Toronto, the honours awarded to its staff and students, and the very large number of scholarly publications and addresses produced by its staff. Impressive also is the number and total amount of research grants made to faculty members because of their reputation and continuing activity in research.

In the Department of Anthropology all sections – the archaeologists, physical, social and cultural anthropologists, and linguists – are involved in extensive field research programmes in Ontario, Japan, Mexico, northern Canada and the Caribbean. Dr. David Hughes is Director of the 30-man Canadian section of an international programme, involving scientists from seven countries, for a comprehensive study of the Eskimo and other peoples of far northern Canada. The Canadian part of this programme began this year with a grant of \$38,000 from the National Research Council, and is expected to take five years and cost \$1 million to complete. Work has also begun on the burial grounds on Christian Island, which contain the remains of about 5,000 Huron Indians believed to have starved to death during an Iroquois siege of the island in 1650. The Department has also become associated with a Caribbean Consortium which includes Brandeis, McGill and Columbia universities and the universities of Montreal and the West Indies. This group co-ordinates research and training in the Caribbean area. Dr. J. N. Emerson was elected Vice-President of the Canadian Archeological Association at its founding meeting in Winnipeg in March 1968.

The new telescopes now available to the Department of Astronomy at the top of the Burton Tower have been very successfully in continuous use for laboratory and instructional purposes during the year. The "June Institute" for 1968, sponsored by the University and held on the St. George Campus, included four eminent astronomers as invited speakers from universities in the United States and a large number of participants from across Canada and the United States. It is the hope of the Department and the Faculty that funds will be made available to allow Toronto to participate in the creation and operation of a large optical telescope in the Southern Hemisphere, and in other international research projects which are possible only on a large-scale co-operative basis.

The Department of Botany continues to be one of those most restricted in terms of space for its operations. Despite this, it still manages to make major contributions to teaching and research. The election of Professor R. F. Cain as Vice-President of

the Mycological Society of America is an indication of the scientific reputation of the members of staff of this Department.

All members of the Department of Chemistry were delighted that Professor F. E. Beamish was named the first Fisher Scientific Lecture Award winner of the Chemical Institute of Canada. Professor Beamish has inspired and trained most of the analytical chemists working in Canada today, and his very many contributions to research in this branch of Chemistry are internationally recognized and respected. The death of Dr. A. R. Gordon, Professor Emeritus, former Head of the Department and Dean of the School of Graduate Studies, was a sad loss to us all.

During the year the Department of East Asian Studies received the news that it had to move for the second time in a year, this time to the upper floors of the old Borden Garage. We hope that this will be the last move for this Department before it is able to move into permanent and properly designed quarters in a new academic building.

A proposal for a PH.D. programme in the History of Art was made by the Department of Fine Art during the year and now awaits the report of an appraisal committee. Professor Vickers was appointed to the Board of Trustees of the National Museum of Canada, was elected a member of the Humanities Research Council of Canada and, with Professor Brieger, was appointed by the National Gallery of Canada as a consultant for the Exhibition of Medieval Art to be held in 1970. Lectures in honour of the Centennial Year were given by Sir Anthony Blunt and by Professors André Chastel, Rudolf Wittkower and Andrew Alfoldi.

Professor D. P. Kerr was appointed Chairman of the Department of Geography, following a period as Acting Chairman. Professor Kerr brings to this post an intimate knowledge of the Department and the international state of his discipline, together with an approach to its problems that in its vigour and enthusiasm is strongly reminiscent of his predecessor, Professor J. W. Birch. Several major new research grants have been made to members of the staff of this Department.

The Department of Geology has brought into operation a geochemical laboratory for research on the chemical composition of the earth, under the direction of Professor J. C. Van Loon. An important achievement was the bringing to Toronto as Visiting Professors of scientists from the United States Geological Survey, Washington, D.C. - Drs. F. Chayes, D. B. Stewart and P. Toulmin. Professor Nuffield has been appointed a member of the National Advisory Committee on Research in the Geological Sciences.

The highlight of the year for the Department of History was the meeting of the American Historical Association held in Toronto in December. This meeting was organized by Professor J. B. Conacher, and eleven members of staff of the Department participated in its programme. Some 4,000 historians from all over the continent were greeted by Professor J. M. S. Careless, President of the Canadian Historical Association. Professor Ramsay Cook was appointed to succeed President Bissell as Professor of Canadian Studies at Harvard for 1968-69, and we are very sorry that he will not be returning to the University at the end of next year. After 30 years of outstanding service to the University, Professor Bertie Wilkinson finally resigned from his University service at the end of the year. Professor Wilkinson has brought great fame to this University and we shall miss his scholarship and his good humour very much indeed. Professor D. G. Creighton has been appointed University Professor, joining Professor H. N. Frye in this appointment of special distinction. Professor Creighton was also invested as a Companion of the Order of Canada in recognition of his great service to this country.

Several Visiting Professors made important contributions to the teaching programme in the Department of Italian and Hispanic Studies during the year. The Latin American Studies programme, completing its third year of operation, now includes the possibility of study for a year in a Latin American University for students in the third year of the programme. Professor J. H. Parker was elected President of

the Canadian Association of Hispanists, Professor K. L. Levy was elected President of the Instituto Internacional de Literatura Iberoamericana and Professor J. A. Molinaro was elected President of the newly formed Ontario Chapter of the American Association of Teachers of Italian.

Three of our Chairmen are giving up their appointments as Chairmen at the end of this year. Professor G. M. Wickens will be succeeded by Professor R. M. Savory as Chairman of the Department of Islamic Studies, Professor D. B. De Lury by Professor G. F. D. Duff as Chairman of the Department of Mathematics and Professor C. R. Myers by Professor G. E. Macdonald, who will be Acting Chairman of the Department of Psychology for 1968-69. Professors Wickens, De Lury and Myers have been the inspiration and the driving force behind many of the achievements of their Departments, this Faculty and the University. We shall miss their wise counsel and experience in administrative matters, but following their year's leave of absence we shall benefit from their new freedom to undertake increased teaching and research activities. We shall expect much from their successors and will not be disappointed. We wish them every success.

The Department of Mathematics has played an important part in the establishment of the Institute of Applied Statistics and in the development of the Master of Arts for Teachers programme. Professors F. V. Atkinson and D. A. S. Fraser were elected Fellows of the Royal Society of Canada, and Professors J. H. H. Chalk and H. Heilbronn were named editors of the *Canadian Journal of Mathematics*. Professor P. G. Rooney was elected to the President's Council, Professor T. E. Hull was appointed Chairman of the Graduate Department of Computer Science and Professor J. C. Ogilvie Chairman of the Institute of Applied Statistics. A very active programme of visiting professorships and research associateships has added strength and variety to the activities of the Department during the year.

The University and the Department of Philosophy were saddened by the deaths of Professor Emeritus F. H. Anderson and Professor W. M. D. Long during the year. These internationally respected scholars contributed greatly to the prestige of this University. In addition to the scholarly publications (which included three books) coming from the Department was the introduction this year of *Symposia*, a students' philosophical journal produced and published by graduate and senior undergraduate students in the Department. Partly as a result of the stimulus this provided, two graduate students had papers accepted on the programme of the Canadian Philosophical Association Annual Meeting at Calgary this year. The Department has also produced a most valuable and informative bulletin for students in high schools entitled "Philosophy for Undergraduates." Its purpose is to explain to prospective undergraduates what the study of philosophy involves and how it may contribute to general education. This bulletin is a model that might well be copied by all Departments.

The new McLennan Physical Laboratories were formally opened on September 14, 1967, by Dr. G. Herzberg, Director of the Division of Pure Physics, National Research Council, Ottawa. The opening was the occasion of a series of special scientific lectures given by Dr. Herzberg; Dr. C. H. Townes, University of California at Berkeley; Dr. S. Chandrasekhar, University of Chicago; Dr. A. Kastler, University of Paris; Dr. M. Kac, The Rockefeller University; and Dr. R. H. Dicke, Princeton University. An oil painting of Professor E. F. Burton, Head of the Department of Physics 1932-48, was presented to the Department by Mr. Edgar G. Burton to mark the opening of the Burton Tower portion of the new laboratories. The facilities afforded by the new McLennan Laboratories have allowed the Department of Physics to arrange visits from the staff and students of secondary schools in the Toronto area. On November 8, 131 principals, heads of science departments and guidance counsellors were shown the laboratories and took part in a panel discussion. On November 25, 400 Grade 13 students were shown the laboratories. Professor A. W. Brewer was elected President of the International Ozone Commission. Professor A. E. Litherland was elected a Fellow of the Royal Society of Canada. Professor J. T.

Wilson was the recipient of many honours, including Fellow of the Royal Society (London) and Foreign Associate of the National Academy of Sciences, USA; he received the first Walter H. Bucher Medal awarded by the American Geophysical Union and the Logan Medal of the Geological Association of Canada.

The research and public service activities of members of staff of the Department of Political Economy have increased with unprecedented rapidity during the year. Many very large research grants have been made to groups within the Department and others are likely to be awarded in the near future. Members of the staff are heavily involved in programmes of aid to developing countries. Several interdisciplinary units in the University have their base in this large and complex department, which is inspired, guided and managed with great skill and imperturbability by Professor Easterbrook.

An exciting event in the year for the Department of Slavic Languages and Literatures was the visit of the distinguished scholar and literary historian, Gleb Struve, Professor of Slavic Languages and Literatures at the University of California, Berkeley. Professor Struve's lecture – a standing-room-only occasion – was a thrilling experience for all who were able to attend.

The reappointment of Professor S. D. Clark as Chairman of the Department of Sociology was welcome news for those who had worked with him over the years. His success in bringing to the Department yet another senior colleague, Professor John Porter (Professor of Sociology as from July 1, 1968), is a clear indication of the high reputation of the Department.

The Department of Zoology has had a most successful first year under its new Chairman, Professor D. A. Chant. It was marred only by the sad news of the death of an old friend and valued colleague, Professor Emeritus W. H. T. Baillie. Professor K. C. Fisher was appointed Study Director to the Science Secretariat of the Privy Council, Ottawa, to conduct a study on Basic Biology in Canada. Dr. D. A. Chant continued as a member of the Agricultural Research Study Group for the Science Secretariat. Plans have been formulated for a comprehensive study of the total energetics of an Arctic lake ecosystem at Resolute Bay. The research is to be supported by the National Research Council as an International Biological Programme project. Members of the Department will have the active co-operation of limnologists in other universities of Ontario and Quebec. The research is under the direction of Dr. F. H. Rigler of the Department. Together with the terrestrial ecologists, there were 19 senior investigators and students from the Department in the Arctic in the summer of 1967.

In addition to the honours and awards mentioned above, and many others that have not been recorded in this report, the following were awarded the Canadian Centennial Medal: Professors V. W. Bladen, J. M. S. Careless, J. B. Conacher, Miss M. A. Fritz, Professors T. A. Goudge, J. F. Heard, K. F. Helleiner, C. O. Hines, H. S. Hogg, J. N. P. Hume, D. J. Le Roy, C. B. Macpherson, C. R. Myers, R. J. Northcott, C. P. Stacey, B. P. Stoicheff, J. van Kranendonk, H. L. Welsh, J. T. Wilson, P. Yates.

We have lost the services of a number of valued colleagues who accepted appointments and responsibilities at other Universities. We wish them well in their new positions. We were able to recruit about 85 new members of the teaching staff, many of them to senior positions, and welcome them as colleagues in this stimulating and exciting Faculty.

A loss which will be felt by the whole Faculty is the resignation of Professor Ralph Campbell as Associate Dean. The four years we have worked together have been very happy and productive ones. Dean Hallett and I will miss his wise counsel and patient execution of his administrative responsibilities. He leaves us partly because he has taken on the Chairmanship of the Presidential Advisory Committee on Discipline – a task that is of the greatest importance to the whole University community and one that will call for all the wisdom and tolerance he possesses. To a good friend and colleague we give our sincere thanks and best wishes for the future.

I should be remiss if I did not express the gratitude of the entire Faculty to Provost Moffat St. A. Woodside, who has served it so ably and well as Chairman of Council this past year. The University's debts to the Provost are so numerous that they do not bear repeating in this report, but, for all that he has done for the Faculty over so many years, I express our thanks and our best wishes in his future role as a distinguished Professor in the University.

I should also like to pay tribute to our College Registrars. I think it is true to say that no one else in our organization is so intimately aware of the individual problems, both academic and general, of our undergraduates. Our Colleges, including of course the new-campus colleges Scarborough and Erindale, form a system that with all its faults is the envy of most other large universities. A significant factor in their success is the willingness of their academic Registrars to devote themselves to the needs and guidance of our students.

This year has been a difficult one for Dean Foulds and his staff. The rate of change of our rules and regulations has increased greatly under the influence of the Macpherson Report. Next year will call for all the ingenuity he and his staff can muster to make sure that whatever the Council decides to do can be implemented in a way that makes sense to staff and students alike. The responsibility for arranging the complex electoral process that led to the first student members of Council rested entirely on Mr. Foulds and his staff. This difficult operation was carried through in a manner that was praised by all concerned.

My final words of praise and thanks go to Mrs. Gamble and Mrs. Cassac, who have carried out their ordinary and extraordinary duties with skill, patience and good humour that defeat any lack of these qualities in the rest of us.

A. D. ALLEN

THE DIRECTOR OF THE DAVID DUNLAP OBSERVATORY

The observatory of a sufficiently large university ought to be active in a variety of fields, if its graduate programme is not to be too one-sided and its graduates too highly specialized. This is particularly important in Canada where there are relatively few such institutions. There is of course a limit to what is possible in this respect. Perhaps this Observatory, having expanded in several ways over the last decade, has now reached a plateau in the development of its major interests.

For all of its thirty-five years our telescope has been well instrumented for spectroscopy, and we are particularly well known for our work in the determination of the radial velocities of stars. The current year saw the publication of the proceedings of an international symposium on that subject which was held here in June 1966. Our programme in spectroscopy at medium and low dispersion will be continued with modernized equipment which is now being developed. Over the years we have also felt a responsibility for searching out and cataloguing the variable stars in globular clusters and each year sees more photographs of these ancient objects added to our unexcelled collection. Our interest in the measurement of brightness and colour now also extends to other varieties of stars located in the Milky Way galaxy, to the combined light of distant clusters of stars and to the light of galaxies as a whole. In contrast to the very detailed measures of intensity which are involved in spectroscopy, we are concerned here with the intensity of electromagnetic radiation integrated over a broader range of wavelengths. Our electronic and instrumental facilities for photometry of this sort have grown to be first class and in this year's

record of research there is again an increasing amount of activity in this field. Radio Astronomy makes use of the long-wavelength end of the electromagnetic spectrum, and though it requires quite different techniques, it is basically of the same nature as photometry. Here we continue to work closely with our colleagues in Electrical Engineering (we shared with that Department this year a Visiting Professor of Astronomy, Dr. J. A. Roberts) and again there has been a remarkable increase in the amount and variety of our work. Much of it, particularly the study of the variability of quasars and similarly behaving objects, is related to observational cosmology and therefore complements our work in theoretical cosmology. The latter is part of a rather general theoretical and computational approach to astronomical problems which has been under development here in the last five or ten years. Much of it has been concerned with a star's internal structure and recently there have been several studies of the role played by stellar rotation. This kind of research has attracted a surprisingly large number of graduate students from all across Canada. It must be stressed nevertheless that much of our strength as a university institution lies in the parallel development of both observational and theoretical research.

In view of this broad spectrum of interest, we are continually forced to give serious attention to the provision of additional facilities for making astronomical observations. This matter has an immediate and a long-term aspect. As to the former, the staff has this year shown a remarkable ingenuity in acquiring observing time on telescopes elsewhere. Visits were made by professors and students to the Radcliffe Observatory in South Africa (120 observing hours), the Cerro Tololo Inter-American Observatory in Chile (11 nights totalling 102 hours, every one of which was clear), the Mt. Wilson and Palomar observatories in California (40 hours out of 48 assigned), the Kitt Peak National Observatory in Arizona (96 hours out of a possible 112 on one occasion, 51 hours used on a second and 191 hours used on a third) and the Dominion Astrophysical Observatory in British Columbia (7 hours out of 14 assigned). In addition, 13 staff members and graduate students used a total of 1,060 hours of time on the 150-foot radio telescope at the Algonquin Radio Observatory for our own purposes, and participation by the University in the long-base-line work, a national co-operative project, required 700 more hours on that instrument during the year.

The record shows how heavily we have depended on the generosity of foreign observatories to satisfy the needs of the University of Toronto's graduate programme. Not counting the radio observations, we used 60 per cent more hours than are available to us in an average year on the 74-inch telescope in Richmond Hill. It also clearly shows the advantage of having access to a telescope located in Chile, where 8 nights out of 10 are clear the year round and the quality of the stellar image is superb.

The long-term implications are obvious since demand for observing time is increasing in all countries. Only first-class facilities will keep Canada in the forefront of world astronomy, and it takes years to build them up. The concern about the provision of adequate observing facilities, on which I dwelt at length last year, is even more strongly felt now, not only by Toronto astronomers but by all other university groups. Here too is an unequalled opportunity for the province of Ontario to foster co-operative research among its several universities which already have graduate programmes in astronomy.

Co-operation among astronomers is such a long-established custom that it comes naturally to the universities in this neighbourhood. For six years there has been a co-operative research programme between Dr. Amelia Wehlau at the University of Western Ontario and Professor Helen Hogg. Last year we undertook to provide a share of observing time on the 74-inch telescope to Professor FitzGerald at the University of Waterloo. Queen's, the University of British Columbia and Toronto continue to work together with government astronomers in the famous Canadian long-base-line experiment. The essence of the Algonquin Radio Observatory is its joint use by universities under the control of NRC. Again in June this year this

University was host to visitors from 21 Canadian and United States centres in another week-long "June Institute," this time on the subject of Stellar Physics and Cosmology. We believe these annual conferences have been successful in their aim of bringing graduate students from neighbouring universities into contact with one another and with other scientists from farther afield.

Although the buildings of the David Dunlap Observatory are situated in Richmond Hill, this report makes it clear that our activities are much more widespread. It is therefore appropriate to record some milestones at other campuses. Astronomy was taught for the first time at Erindale during the year under review, and a course was made available to students in General Science at Scarborough for the first time. The new quarters for the Department of Astronomy atop the Physics tower were officially opened in September and we enjoyed our first full year's use of the roof-top areas by elementary, senior and beginning graduate students. The 16-inch telescope there is a first-class research instrument and plans are already in hand to take advantage of its potential.

It was anticipated that access to the computer terminals on the twelfth floor of the tower and at the two off-campus colleges would advance our research work this year, but I must record with regret our disappointment in this area. The delays in providing adequate computer facilities have, among other things, materially set back the completion of several Ph.D. and M.Sc. research theses. It is to be hoped that more support for the computer at Toronto can be provided without delay so that the shortcomings in its operation can thereby be rectified.

Our efforts to improve our own telescope have proceeded in a number of ways. The interior of the dome was painted. A much-needed modification of our aluminizing equipment is under way, and a completely new chamber for coating all our small mirrors is being fabricated. Television cameras and monitors have been installed on the 74-inch telescope for remote reading of the two setting circles, and control of the telescope and dome is now possible from a rolling console. One of the Carnegie Institution's image tubes has been provided for use with our telescope; this is a device which makes possible electronic amplification of starlight by factors of between 10 and 100. The 74-inch telescope was in use for 838 hours, and 904 spectrograms were obtained. In addition 37 hours of clear sky occurred on Saturday evenings when the Observatory was open to visitors. The daytime visiting hours were changed this year from Wednesday afternoons to Tuesday mornings to accommodate school groups and as an aid in scheduling departmental activities. A total of 8,500 individuals came as visitors; we estimate that one out of every 100 Canadians has passed through the doors of the David Dunlap Observatory since it was opened and a substantial fraction of these have actually looked through Canada's largest telescope.

Much has been said and written in recent months about how one can justify the spending of public funds for the support of scientific research. Research, so the argument goes, leads to new ideas; new ideas lead to "innovations"; and innovations to more production and jobs, greater markets at home and abroad, and thus to an even more affluent society in Canada and a taxpayer who is happier because he funded the original research. At best the justification seems to be rather round-about and the taxpayer's identification with a particular research project is, in the end, tenuous indeed. Sometimes it takes more than a generation for the circuit to be closed in this way.

There is, I believe, a totally different and far more direct way of justifying the cost of astronomical research. Its validity is growing with the public's interest in astronomy, an interest which stems from everyone's inborn curiosity about the universe. Every person has some question: How big is it? What lies beyond the most distant galaxies? What was it like in the beginning? Why are we here? How did it happen? Are there others? In our own community the R. S. McLaughlin Planetarium will be a new and powerful stimulus to this curiosity. In the process of satisfying it, the country's university research observatories, along with their asso-

ciated undergraduate and graduate teaching departments, must clearly play crucial roles. Since we can already point to great strength at other institutions and at our own, there is every reason to be confident that Canadians will be ready to support astronomy enthusiastically in the years to come.

D. A. MACRÆ

THE DEAN OF THE FACULTY OF MEDICINE

At a time when there is widespread unrest among university students it is imperative that we examine the causes of and seek remedies for the justifiable dissatisfactions. The President has spoken on this subject on numerous occasions.

In the professional faculties, especially Medicine, the goal is possibly more clearly defined than in the humanities. The student in a professional course may complain that some of his instruction appears irrelevant. In this respect he is at variance with students in the Arts' faculties who complain that the University is only concerned with turning out stereotyped members for society's establishment, while offering little freedom to the individual to explore avenues of personal interest.

It is a hard fact of science that meandering leisurely through the meadows of knowledge, sniffing at the daisies of intellectual curiosity while ignoring the thistles of demands for all forms of service, cannot produce the disciplined individual essential to the practice of medicine.

The members of the academic body as a whole may be so preoccupied with personalized research that they ignore the reality of community need. But can a university continue to exist if it deals only with intellectual irrelevancies and fails to concern itself with the pressing demands of society?

No one disputes the necessity for scholarship for scholarship's sake, but has not a university a broader responsibility? If it has, and this responsibility is not met, then extensive technical and professional institutes will have to be established to provide the highly trained and scientifically competent individuals who understand the immutable laws of nature and are willing to adapt them to the service of society.

To provide a balance between pure scholarship with academic excellence, and professional and applied scientific scholarship, is one of the major problems facing the universities and in particular their medical faculties today. To quote from an article by Paul J. Sanazaro, formerly Director of Education, Association of American Medical Colleges:

"We must remind ourselves that medicine brought on this dilemma by its wisdom in adopting a base of productive, scientific research. It has kept its promise of becoming an ever more educated profession. In achieving this objective, it has become increasingly dependent upon an expensive education and technology which cannot be financed in the traditional manner. As a consequence, medicine must now engage in a continuous bargaining with its public, through government. This context and, more importantly, the circumstances accounting for it, must be understood if we wish rationally to analyze the emerging patterns in medical education ...

"First, medical education must more explicitly direct its educational and research goals and functions to the medical care needs of society. As a corollary, education in college and medical school, training in internship and residency, and continuing education must be planned, co-ordinated, and conducted as a continuum. Second, medical schools and universities must regroup their resources and direct them within appropriate academic limitations, to devising and testing new means of

delivering medical care. The public is demanding another miracle of medicine: an effective antidote to the splintering of patient care. In our search for this touchstone, the principles of comprehensive care must be operationally defined and effectively incorporated into the education of all physicians. As a further corollary, the physicians of the future are to be responsible for the health of communities as well as the health of individuals within these communities. To provide these physicians with a base of scientific understanding, medical schools and universities must define, in acceptable academic terms, the substance and the bounds of community medicine ...

"The traditional medical school organization was laid down when its sole function was to train undergraduate medical students. Today medical centres are multimillion dollar enterprises in which expenditures for research, graduate education and residency training far exceed expenditures for undergraduate education. The first four years of medical education is today but one of many programmes in the medical center, and it no longer commands the prime time of the full-time faculty, neither pre-clinical nor clinical. Administrative reorganization is a foregone necessity ..."

For this reason a thorough look at the relationship existing between the Medical School, the teaching hospitals, the university administration and government has been instituted by the Board of Governors. A group of medical educators have spent many hours with the Vice-President (Health Sciences), the Dean and members of the Faculty and hospital representatives seeking to provide impartial answers to many of our complex problems for achieving our educational goals at a supportable cost and with organizational efficiency.

Since nearly all plans for expansion of facilities for clinical instruction in the teaching hospitals have had to await the development of a comprehensive, co-ordinated, and University-approved plan (a recently imposed government requirement) the completion of such a plan is an urgent necessity and is awaited with impatience by the Faculty, the hospitals and the government. The fact that this plan may not coincide with the aspirations of some of the member institutions has been a source of anxiety and apprehension to many. It has pointed up one of the major weaknesses in university organization, namely the slow-moving, inadequate machinery for dealing expeditiously with urgent community needs which can only be met by university co-operation and participation. If the University continues to aspire to give leadership in the field of Health Education it must be prepared to react quickly and appropriately to community requirements while maintaining its high standard of academic excellence.

Having dealt with some of the negative characteristics of our situation, it is a pleasure to note many positive advances.

The construction of our Medical Sciences Building, which was delayed by strikes last year, has progressed so rapidly that we shall be moving into the East Tower this summer, six to eight months ahead of schedule.

The old Medical Building will be demolished in August to make way for the auditorium, and if the present pace is maintained the whole complex will be completed by September 1969.

Another plus in our activities was the acceptance of the feasibility of a new curriculum based on teaching by bodily systems rather than by departmental disciplines. The enormous amount of time and effort expended by Faculty members on various systems committees is a most heartening reassurance of the personal concern of each member of the Faculty to provide a practical as well as an excellent curriculum. Special mention should be made of the Period Co-ordinators: Dr. Sellers (Period I), Dr. Laidlaw (Period II), Dr. Watters (Period III) and Dr. Morch (Electives). It is hoped that the syllabus, time-tables and examination procedures will be ready for Senate approval early in the next academic year.

In the area of clinical postgraduate education, programmes for specialty training have been delineated, including the appropriate numbers of staff members

and students by department and hospital. Forecasts of teaching and research space required in the Medical School and its affiliated hospitals by the expanded enrolment have been made. This is a new dimension of University responsibility and one which has been only vaguely defined in the past. It will comprise a very major portion of Faculty activity. A satisfactory resolution of all our obligations in this field is our chief concern of the moment. A special committee made up of members of the Board of Governors and Faculty is studying the problem.

Internal organization within the Faculty has received attention. At a two-day retreat of Department Heads, there was a fruitful exchange of ideas and information. Resolutions were passed which are expected to lead to effective operational procedures to ensure the close support of the programme by the administrative resources of the Faculty.

In association with the Deans of the other Medical Schools in Ontario consideration was given to the means of providing for the financial assistance to final-year students who will be required to spend 12 months in a clinical clerkship. That the unit value ascribed to medical students under the system of formula financing falls far short of the needs of our faculties is causing concern. Clinical, bedside, and outpatient teaching requires one instructor to a maximum of four or five students, a ratio close to that for graduate students who are ascribed a unit value of six at the P.H.D. level, while medical students are rated at three. Consideration has also been given to the complexity of financing clinical staff and the possible effect of universal health insurance on educational programmes.

Turning now from general to some specific areas we are happy to say that Professor Irving Fritz of Ann Arbor has accepted the Chairmanship of the Banting and Best Department of Medical Research.

Dr. Robin Badgely has accepted the Directorship of the new Division of Behavioural Science.

Dr. L. R. Christensen has filled a greatly needed position as Director of the Division of Laboratory Animal Science.

Dr. N. Swanson has been appointed Director of Audio-Visual Facilities.

Dr. Robert Julius is Director of Medical Computing Facilities for the Faculty.

We regret to announce Dr. E. Sellers' resignation as Associate Dean, Basic Sciences, to return to a professorship in Pharmacology. The Faculty is grateful for his thoughtful attention to their problems.

Dr. Philip Greey, Chairman of the Department of Bacteriology, retires from his post this year. Dr. Franklin has been appointed Acting-Head.

The inclusion of student representatives in many Faculty committees and on the Council has been beneficial to all concerned.

Finally, I should like to thank all those who by their donations have so generously supported our fellowship, scholarship and research programmes.

Research

Abbott Laboratories Limited; Alcoholism and Drug Addiction Foundation; American Medical Association; The Atkinson Charitable Foundation; Ayerst McKenna Harrison; Banting Research Foundation; J. P. Bickell Foundation; British Drug Houses; Burroughs, Wellcome and Company; Canadian Arthritis and Rheumatism Society; Canadian Cystic Fibrosis Association; Canadian Diabetic Association; Canadian Foundation for Advancement of Therapeutics; Canadian Heart Foundation; Canadian Life Insurance Officers' Association; C.I.B.A. Foundation; The Commonwealth Fund; The Connaught Medical Research Laboratories; The James H. Cummings Foundation; Cyanamid of Canada Limited; The Defence Research Board; Department of Health (Provincial); Department of National Health and Welfare; Dominion Stores Limited; Eaton Endowment Account; James Franceschini Foundation; Lederle Foundation; R. Samuel McLaughlin Foundation; John and Mary Markle Foundation; Medical Research Council of Canada; Multiple Sclerosis Society; Muscular Dystrophy Association of Canada; National Cancer Institute;

National Research Council of Canada; National Sanitarium Association; Ontario Cancer Treatment and Research Foundation; Ontario Heart Foundation; Ontario Mental Health Foundation; Ontario Society for Crippled Children; Ontario Tuberculosis Association (Ontario Thoracic Society); Poulenc Limited; Queen Elizabeth II Canadian Fund; Rehabilitation Fund for the Disabled; Rockefeller Foundation; Rubin Corporation; Schering Corporation Limited; Syntex Limited; United States Army Medical Research & Development Command; United States National Institutes of Health; Warner Lambert Research Institute of Canada; Wynola Corporation.

Visitors

During the academic session many prominent physicians and scientists visited the Faculty. These included:

Department of Anaesthesia: Professor Edmond I. Eger II, University of California, San Francisco, who gave the Ninth Dr. Harry Shields Lecture; Dr. W. N. Rollason, Aberdeen; Dr. Thomas W. Baillie, Dumfries; Dr. Emerson Moffitt, Mayo Clinic, Rochester, Minnesota; Dr. Russell Cole, Melbourne; Dr. Ian Geddes, Liverpool; Dr. Cedric Prys-Roberts, Oxford; Professor Ole Secher, Copenhagen.

Department of Art as Applied to Medicine: Mr. Robert Demarest, New York.

Department of Medicine: Professor Jan Brod, Prague; Professor Lucien Brumpt, Paris; Dr. B. Clarkson, New York; Dr. J. V. Dacie, London; Dr. Z. Dubiński, London; Dr. W. K. Engel, Bethesda, Maryland; Dr. C. E. Ford, Berkshire, England; Dr. J. Goodwin, London; Dr. D. Hamer, London; Dr. G. Hawton, Manchester; Dr. Harley, Halton; Dr. J. Hay, Montreal; Dr. G. Howitt, Manchester; Professor D. Hioco, Paris; Dr. J. E. Howard, Baltimore, Maryland; Dr. M. Kuxerz, Prague; Dr. S. Lee, Edmonton; Dr. G. Loewi, Taplow, England; Dr. M. Matthews, Edinburgh; Dr. G. Miller, Madison, Wisconsin; Dr. G. A. H. Miller, London; Professor Henry Miller, Newcastle, England; Dr. R. Rohmer, Sweden; Dr. Slade, British Columbia; Dr. G. Sloman, Melbourne; Dr. P. K. Thomas, London; Dr. J. Vaughan, Rochester, New York; Dr. W. Wrong, London; Dr. R. Young, St. John's, Newfoundland.

Department of Obstetrics and Gynaecology: Professor J. H. M. Pinkerton, Belfast; Mr. W. R. Winterton, London; Dr. J. D. Woodruff, Baltimore, Maryland; Dr. Clyde Randall, Buffalo, New York; Dr. J. C. S. Spry-Leverton, England; Dr. J. A. Chalmers, Worcester, England; Professor Lance Townsend, Melbourne; Dr. Mary Coyle, Dundee.

Department of Ophthalmology: Dr. Alfred J. Elliot, British Columbia, who gave the Tenth Walter Wright Lecture; Professor C. I. Phillips, Manchester; Dr. S. M. Drance, British Columbia; Dr. David D. Donaldson, Harvard University; Dr. Herbert E. Kaufman, Gainesville, Florida; Dr. W. K. Noell, Buffalo, New York; Dr. C. R. Braechevelt, London, Ontario; Dr. R. Cosentino, Buffalo, New York.

Department of Otolaryngology: Professor John Bordley, Johns Hopkins University; Professor George Reed, New York; Professor I. Friedmann, London.

Department of Paediatrics: Dr. David G. Nathan, Boston; Dr. Barbara Ansell, Taplow, England; Dr. Frederic N. Silverman, Cincinnati; Professor Ettore Rossi, Bern; Professor Otto Wolfe, London; Dr. Colin Forbes, Lagos, Nigeria; Dr. O. Ransome-Kuti, Lagos, Nigeria; Dr. Tom Stapleton, Sydney; Dr. José Ramirez, Baltimore, Maryland; Dr. Alf Backman, Helsinki; Dr. Divak Pongpipat, Bangkok; Dr. Espino-Vela, Mexico; Dr. Elizabeth Wilmot, Melbourne; Dr. Robert Southby, Melbourne; Dr. N. Hale, Cambridge, England; Dr. Alice Bush, Auckland; Dr. V. L. Collins, Melbourne; Dr. A. Nisonoff, Chicago; Professor M. Verstraete, Louvain, Belgium; Dr. Murray Davidson, New York; Dr. Hung, Taipei.

Department of Pathological Chemistry: Dr. Morris Kates, NRC, Ottawa; Dr. K. M. Anderson, Chicago.

Department of Pathology: Dr. Basil Morson, London; Professor Christian deDuve, Brussels and New York; Dr. Jeorh Jensen, Miami; Dr. William Mair, London; Dr. Peter Thomas, London; Dr. King Engle, Bethesda, Maryland; Professor I. Friedmann, London; Dr. G. Loewi, Taplow, England; Dr. Hugh Starkey,

Montreal; Dr. Robert Wissler, Chicago; Dr. A. G. Sanders, Oxford; Dr. K. Ishizaka, Denver; Dr. Peter Ward, Washington; Dr. D. C. Gajdusek, Bethesda, Maryland.

Department of Pharmacology: Dr. P. Stern, Sarajevo, Yugoslavia; Dr. L. Spero, New York; Dr. A. S. V. Burgen, Cambridge, England; Dr. M. P. Earles, London; Dr. Ian Geddes, Liverpool; Dr. C. C. Gale, Seattle; Dr. H. Blaschko, Oxford.

Department of Physiology: Dr. Iain MacIntyre, London; Dr. C. A. Goresky, Montreal; Dr. Walton W. Shreeve, Brookhaven National Laboratory; Dr. J. J. Hoet, Louvain, Belgium; Dr. Hans-Dieter Söling, Göttingen, West Germany; Dr. E. M. Renkin, North Carolina; Dr. B. Pomeranz, Massachusetts; Dr. B. Issekutz, Dalhousie University; Dr. J. H. Dirks, Montreal; Dr. K. Krnjevic, McGill University; Dr. R. M. Preshaw, Mayo Clinic; Dr. D. S. Kronfeld, Pennsylvania; Dr. J. S. Beck, Minnesota; Dr. J. Grayson, Alberta; Dr. J. A. F. Stevenson, London, Ontario; Sir David Cuthbertson, Glasgow; Dr. J. M. Frederickson, Stanford University of Medicine; Dr. N. S. Track, London.

Department of Psychiatry: Dr. Jules H. Masserman, Northwestern University; Dr. Ian Gregory, Ohio State University; Dr. Lawrence Kolb, New York.

Department of Radiology (Diagnostic Radiology): Dr. Paul Roy, Montreal; Dr. Thomas F. Meaney, Cleveland Clinic; Dr. Shura Holesh, London; Dr. Osamu Ishida, Osaka, Japan; Dr. Sidney W. Nelson, Ohio State University; Dr. E. A. MacLaughlin, Newfoundland; Dr. N. Snijder, Geldrop (Eindhoven, Holland); Dr. S. Oksaner, Helsinki; Dr. E. Tahti, Helsinki; Professor Kurt Decker, Munich; Dr. Fred Silverman, University of Cincinnati; Dr. J. S. Dunbar, McGill University.

Ontario Cancer Institute: Dr. Nadejda Greigorieva, Moscow; Dr. Natalia Vorobieva, Moscow; Dr. Ernst Gottinger, Linz, Austria; Captain Khin Maung Ky, Burma; Dr. W. Urquhart, Palmerston North Hospital, New Zealand; H. R. H. Princess Margaret; The Earl of Snowdon; Dr. Simon Kramer, Philadelphia; Dr. V. P. Collins, Houston, Texas; Dr. John Hayward, London; Dr. M. Bulbrook, London; Dr. John C. Pugh, London; Dr. Sigvard Kaae, Aarhus, Denmark; Dr. J. S. Pearson, Edinburgh; Dr. W. F. White, London; Dr. Philip Corlette, Sydney; Dr. G. G. Germann, Melbourne; Dr. Jean-Pierre Wolff, Seine, France; Dr. P. Thomas, Leiden; Dr. Graham Sopsford, Brisbane.

Department of Surgery: Dr. Paul Baj, Mexico City; Dr. W. T. Barnes, Danville, Pennsylvania; Mr. Ronald Belsey, Bristol; Dr. John Dark, Manchester; Dr. William S. Dye, Chicago; Dr. S. H. Farrell, Wales; Dr. F. S. Gerbasi, Detroit; Dr. S. Holesh, London; Dr. Brian Johnstone, Fort Francis, Ontario; Dr. M. Kucera, Prague; Dr. Richard Lenerhefer, Vienna; Dr. W. D. MacDonald, Calgary; Dr. André McClish, Quebec City; Dr. Owen W. Miller, Columbia, Maine; Dr. Emerson Moffitt, Rochester, Minnesota; Dr. E. A. Osius, Detroit; Dr. G. B. Parulkar, Bombay; Dr. Shigeru Sakakibarga, Tokyo; Dr. J. A. Simpson, Perth, Australia; Dr. S. Singh, Edmonton; Dr. R. E. Taber, Detroit; Dr. L. D. Wilcox, London, Ontario; Dr. S. W. Winslow, Battle Creek, Michigan; Dr. J. A. Witter, Detroit; Dr. Liebermann Yair, Israel; Professor Zudiasz, Budapest; Professor John H. Davis, Cleveland; Dr. Adrian Marston, London; Dr. John E. McBirnie, Port Colborne, Ontario; Professor Wm. V. McDermott, Boston; Dr. Basil Morson, London; Professor Paul Schloerb, University of Kansas; Dr. Roy Selby, Kuala Lumpur, Malaysia; Dr. Y. Sunami, Okayama, Japan; Dr. Norman Cecil Tanner, McLaughlin-Gallie Visiting Professor, London; Mr. Lawrence Wade, James IV Visitor, Cardiff; Dr. B. J. Dooley, Melbourne; Dr. M. A. R. Freeman, London Hospital Medical College; Dr. A. N. Henry, London; Dr. W. M. McQuillan, Edinburgh; Dr. A. R. McKenzie, Otago, New Zealand; Dr. Mraim McKibbin, Sheffield; Dr. C. L. Greaves and Dr. J. B. Maloney, Sydney; Professor Carl Hirsch, Göteborg; Professor A. R. Hodgson, Hong Kong; Dr. Jennifer Jowsey, Rochester, Minnesota; Mr. Kingsmill-Moore, London; Dr. Ross Nicholson, New Zealand; Dr. Peter Williams and Dr. Keith Daymond, Australia; Dr. Claude Bertrand, Montreal; Dr. Kevin Bleasel, Sydney; Dr. B. H. Dawson, Salford, England; Dr. Joel Guelmann, Rio de Janeiro; Dr. Antony Jefferson, Sheffield; Dr. Alan Kerr, Liverpool; Dr. Keith Langford, Melbourne; Dr. Charles Langmaid, Cardiff; Dr.

Jean Lecuire, Lyon, France; Dr. Andrew Masson, University of the West Indies, Jamaica; Dr. A. Paterson, Killearn, Scotland; Dr. John Potter, Oxford; Dr. J. M. Small, Birmingham; Dr. S. K. Wang, Taiwan; Dr. M. L. Wheatley, Parry Sound, Ontario; Dr. John D. Yeo, Sydney; Dr. Thomas Gibson, Paisley, Scotland; Dr. I. F. K. Muir, Middlesex, England; Dr. John C. Mustarde, Glasgow; Dr. Roger C. B. Pugh, London; Dr. Romando Trabucco, Buenos Aires; Dr. David M. Wallace, London; Dr. Turner Warwick, London.

A. L. CHUTE

THE DEAN OF THE FACULTY OF APPLIED SCIENCE AND ENGINEERING

The Presidential Users' Committee on the Space Needs of the Faculty (1967) states academic objectives for the growth of the Faculty to a terminal enrolment of 3,000 undergraduate students and 1,000 postgraduate students. With present enrolments standing at 2,000 undergraduate students and 550 postgraduate students, and growth at close to planned rates, the Faculty faces severe shortages of effectively usable space and facilities. The validation or adjustment of our academic objectives in the larger context of the University and indeed the province has become essential.

The completion of the renovations to the Old Electrical Building during the year assisted the Institute for Biomedical Electronics and the Department of Industrial Engineering, but the continued unexpected delay in the renovation of the Sandford Fleming Laboratories (Old Physics) and the east of the Wallberg Building with provision for the Centre for Materials Research has left major departments and projects in serious plight.

I have commented previously on the fruitful bonds which connect the Faculty to other divisions. Major impetus was given this year by the Department of Civil Engineering to the initiation of an interfaculty programme in Environmental Sciences and Engineering concerned especially with water pollution. The planned use of the Mill Building as a multi-faculty part of laboratory facilities for the graduate programme may set a useful example for other single-function multi-faculty buildings for science and engineering.

A strong bond is being built between the graduate Department of Computer Science and the Department of Electrical Engineering. A large digital-hybrid computer system for University use that can be dedicated to joint studies is to be installed. In a year in which we are losing one of our few specialists in air pollution to the United States at a relatively astronomical salary, it is encouraging to see gifted young PH.D.'s from the best American schools choosing to come to Toronto to join the computer group.

The Ford Foundation Grant has now run its full term of five years. Behind the simple fact that in this period graduate enrolment has tripled is a record of the improvement of staff, students and programmes through a major "margin of flexibility" that deserves and has received a more detailed chronicle.

The conviction that the best postgraduate student and engineer is a well-taught undergraduate continues to be strongly held among us. Professor P. E. Burke has been appointed Chairman for First Year Studies, an academic-administrative position from which he will seek, through departmental representatives, to bring needed co-ordination and focus to the selection, academic counselling and instruction of some 700 freshmen taught by nine departments of three faculties.

During the year the J. Roy Cockburn bequest of some \$500,000 became available for uses to be determined by the Council of the Faculty. Initial plans call for the development of an Engineering Design Unit concerned to give strength to the art of design at both the undergraduate and graduate levels.

A recent report of the Canadian Association of Physicists, one of many directing attention to Canada's need for more innovative studies and research in applied science, noted that the Faculty has more students (grade 13 average about 80 per cent) enrolled in Engineering Science than all similar programmes in the remainder of the country. While many students transfer from the rigours of this course, only about 1 in 10 fails first year. New opportunities for the interlacing of engineering with the life and social sciences are now possible in this programme. Engineering Science is strongly and warmly supported by the teaching resources of the Faculty of Arts and Science. With its emphasis on applied science the course provides a natural complement to studies in the science departments.

The undergraduates of the Faculty participated in the protest movement of the year with admirable physical restraint but with less than sustained intellectual vigour. We lecture and assign laboratory duties too intensively. Snowballs and all, they were among the few who displayed any real sense of humour. It is interesting to observe that a mere two years have separated the ceremonial opening of a subway and the Columbia riots. In these organizationally turbulent times it is my conviction that nothing short of a reaffirmation of the central role of interpersonal staff-student relationships will generate a renewed binding myth for the community.

With regret I note the death of Professor S. E. Wolfe of the Department of Mining Engineering, a loyal servant of his department, faculty and profession.

Professor C. F. Morrison retires this year as Head of the Department of Civil Engineering after forty years of distinguished service as educator and engineer. I shall miss his wisely and succinctly given advice. Professor Morrison is succeeded by Professor T. C. Kenney, who comes to us via McGill, Imperial College and the Norwegian Geotechnical Institute. Professor Arthur Porter has with his customary catalytic curiosity set aside his duties as Head of the Department of Industrial Engineering to tackle problems of bringing new technologies to bear on teaching in the Faculty and the University. He is succeeded by Professor B. Bernholtz who is returning from sabbatical leave at Stanford. Professor V. G. Smith, formerly Head of the Department of Engineering Science, unexpectedly chose to retire this year. For 44 years Victor Smith has been a distinguished servant of the Faculty. I am among the generations of students for whom he resolved many of the mysteries of electric circuits.

I am grateful for the opportunity to have shared this year with the Acting President, his staff and the loyal company of the Faculty.

JAMES M. HAM

THE DEAN OF THE FACULTY OF FOOD SCIENCES

The development of the Division of Health Sciences in the University, and the inclusion of our Faculty as a member, have changed somewhat the direction of our academic programme. The emphasis on foods and nutrition has been increased in our undergraduate curriculum. With the acquisition of Sunnybrook Hospital, we expect that it may be possible, even during the period of transition from a veterans' to a general hospital, to initiate some new programmes. At the present time the Integrated Internship Programme under the sponsorship of the Canadian Dietetic Association is operated by individual accredited hospitals across Canada. If such a

programme can be set up in Sunnybrook, members of this Faculty will be responsible in part for direction of the project. Another possibility is to negotiate for the establishment of a Nutrition Clinic for weight reduction, using patients of some of the medical personnel. In general, an attempt will be made to co-operate with other members of the Health Sciences group throughout the hospital.

A Student-Staff Committee was formed during the year to study the academic programme of the Faculty. The staff elected four senior members, and the students selected a representative from each of the four years. Meetings were held on a more or less regular basis during the second semester and items were submitted for consideration. It was apparent that many of the subjects thought by the students to be in the problem area could be explained by existing campus-wide procedures with which they had not become familiar. Our committee is, at the moment, serving mainly as a clearing-house for academic sources of discontent among the students. We expect that a similar body will be set up for the 1968-69 session.

Further studies on the nutritive value of fish and fish products have been carried out. In the first phase, the concentration of trace minerals in a wide assortment of marine and freshwater fish was investigated. The content of fatty acids and cholesterol was also determined. Plans for an extension of this work are being set up for the 1968-69 session. Accumulation of these data will facilitate the characterization of various types of Canadian fish and fish products.

An overall project which the nutrition staff, the Ontario Heart Foundation and the Fisheries Research Board are supporting is the production of a "Compendium of Foods." Nutrition information about commercial foods will be assembled in this volume so that nutritionists may readily calculate therapeutic prescriptions recommended by members of the medical profession.

Four junior staff members are leaving us this year. Two of them are proceeding toward a P.H.D. degree: Mr. Anthony Sun in Physiology at the University of Toronto, and Mr. Edward Ehmann at the University of Massachusetts. We record with regret that Dr. Jean Henderson Sabry has also resigned from our staff.

I am happy to report that Professor Armstrong, currently Secretary of the Faculty, has been appointed Assistant Dean, effective July 1, 1968.

In concluding this report I wish to take this opportunity to express my thanks to Acting President Mr. Sword, Provost Woodside and Dr. J. D. Hamilton, Vice-President (Health Sciences), for their direction and interest in our Faculty during this past year.

BARBARA A. MCLAREN

THE DIRECTOR OF THE SCHOOL OF LIBRARY SCIENCE

During the 1967-68 academic session, which marked the fortieth year of the School, the faculty began to deliberate on major changes in the structure and curriculum of its degree programmes. At the present time, the School offers a basic one-year post-graduate programme leading to the degree of Bachelor of Library Science and, in conjunction with the School of Graduate Studies, the Graduate Department of the School offers an advanced one-year programme leading to the degree of Master of Library Science. Re-examination of the degree structure has been hastened by a number of developments including: (a) inability to cover satisfactorily in the present one-year B.L.S. programme material considered to be essential, (b) the emergence

of the M.L.S. degree in the United States and Canada as the basic degree in library science, (c) the Conference on the Structure of Degree Programs, (d) the introduction of courses for library technicians, and (e) the prospect of undergraduate programmes in library science at Canadian universities. As a result of its deliberations, the faculty of the School is now seriously considering plans for the abolition of its present B.L.S. and M.L.S. programmes and the institution of a new two-academic-year (four-semester) graduate programme leading to the degree of Master of Library Science as basic preparation for the professional practice of librarianship in Canada.

(a) *Duration of the B.L.S. Programme*

Although the academic year for the B.L.S. programme has twice been extended in the past three years and now lasts for 35 weeks, including the examination period, it is still proving difficult to cover in the time available all the material that the faculty agrees ought to be presented in a basic degree programme. Judicious pruning of outdated material or material no longer appropriate to a postgraduate programme has afforded some assistance; but the necessary introduction of new courses, particularly in such fields as automation, documentation and data processing, and the presentation of courses in greater depth have kept the workload at a level regarded by both faculty and students as excessive. The duration of the B.L.S. programme is already four weeks more than the academic year in Arts and Science and any further extension would appear to be unrealistic. On the other hand, a new basic degree programme of two academic years (four semesters) would permit the School to devote more time to the development of specialists in order to meet a growing need within the library profession.

(b) *Emergence of the M.L.S. Degree*

In the United States in the late 1940s the graduate Master of Library Science degree programme began to supersede the postgraduate Bachelor of Library Science degree programme and, by the early 1950s, the B.L.S. had disappeared as a post-graduate degree. In Canada, however, the emergence of the M.L.S. degree has been a more recent development. Until 1964, all of the five existing Canadian library schools offered the B.L.S. degree. In 1964, McGill University Graduate School of Library Science decided to phase out its one-academic-year (two-semester) B.L.S. programme and to institute a two-academic-year (four-semester) programme leading to the M.L.S. degree. This change by McGill represented a major departure from previous Canadian practice and brought to an end standardization in the structure of degree programmes in Canada. With the commencement in the fall of 1967 of the new programme at the University of Western Ontario School of Library and Information Science, another departure from Canadian practice occurred with the introduction of a one-calendar-year (three-semester) programme leading to the M.L.S. degree. According to information available from Dalhousie University, its new library school, scheduled to open in September 1969, probably will also offer a three-semester programme leading to the M.L.S. degree. Montréal, which currently offers a one-year (two-semester) programme leading to the degree of Baccalauréat en Bibliothéconomie, has stated that it will drop this programme and change to a two-year (four-semester) M.L.S. programme by September 1970. There has been a need, therefore, for the Canadian library schools offering the B.L.S. programme (Alberta, British Columbia, Ottawa and Toronto) to re-examine their degree structures in view of the emergence of the M.L.S. as the basic degree.

(c) *Conference on the Structure of Degree Programmes*

In order to discuss recent developments in library science programmes in Canada, a special meeting of the deans and directors of the seven Canadian library schools was held in Toronto on April 22 and 23 at the School of Library Science. The conference, called at the invitation of the Director of the Toronto School, devoted its attention to an examination of the appropriate level, length and structure

of postgraduate degree programmes in library science in Canada. Clearly, an attempt to bring about a measure of standardization is desirable not only for the sake of the library schools concerned, but also for the benefit of university administrators, students, graduates and library employers who, understandably, have been confused by the variations in the programmes offered by the seven Canadian schools.

At the Toronto Conference, the following resolution was proposed and endorsed by six of the seven library school heads in attendance with one school abstaining: "Resolved that this meeting endorse the principle of a four-term graduate programme leading to a Master's degree in library science as the basic preparation for the professional practice of librarianship in Canada; and that Canadian library schools attempt to implement the new basic Master's program within five years, i.e., by 1973."

The Conference resolution was subsequently endorsed by the respective councils, advisory committees and faculties of six of the schools, including Toronto, and by the Canadian Association of Library Schools at its annual meeting in Jasper on June 13, 1968. The significance of this resolution is considerable. If implemented, it would mean the end of the postgraduate degree of Bachelor of Library Science and the general acceptance by Canadian library schools of a standard degree structure based on a graduate programme of two academic years.

(d) *Course for Library Technicians*

In order to improve efficiency and to relieve the shortage of qualified personnel, more and more libraries have been making a clearer distinction between professional and non-professional duties. Coincident with this development has been the establishment of courses for library technicians, particularly in the new Ontario colleges of applied arts and technology. There are at least seven such courses at present in Ontario, two in Alberta, two in Quebec, and one each in Manitoba and British Columbia. Of the thirteen technician courses, nine have begun since 1966. Most of these courses admit students with Grade 12 education. The shortage of professional librarians, the improved division of labour between professional and non-professional staff in libraries and the availability of library technicians make it mandatory for graduate library schools to concentrate their efforts on educating librarians in greater depth than heretofore and for them to drop any vestiges of a "technician approach" that might remain in their curricula.

(e) *Undergraduate Programmes in Library Science*

At the present time in the United States, there are several hundred undergraduate programmes leading to a baccalaureate degree with a major in library science (B.A. in L.S.). There is considerable pressure from institutions offering these programmes for official recognition and accreditation by the American Library Association. If the pressure is acceded to, this would further contribute to the ambiguity of the postgraduate B.L.S. degree. At present, no Canadian universities offer undergraduate programmes with a major in library science, although at least seven offer school library programmes for teachers within their faculties of education. Should the undergraduate programmes with a library science major be officially recognized in the United States, however, it is probable that one or more Canadian universities will introduce a similar programme.

The New Programme and Curriculum Revision

Although it does not appear feasible for Toronto to implement a new two-year programme before a move to the new building is made, possibly by 1970, there is unanimity among the faculty that the new programme should be planned as soon as possible and work on it has already begun. If such a programme were implemented, arrangements would have to be made to allow B.L.S. graduates to upgrade their qualifications and to permit M.L.S. students registered in the present programme who might not have completed their degree requirements by the change-over date to have an opportunity to do so.

Concurrent with discussions about revision of the degree structure, a full-scale review of the present B.L.S. curriculum has been under way. Since October 1967, the Committee on Curriculum, under the chairmanship of Professor Mary Silverthorn, has held more than 30 meetings, some of them of a full day's duration. Inevitably, progress is slow as the Committee attempts to implement in a new curriculum the goal of education for librarianship which it has defined as follows: "The ultimate goal of education for librarianship should be to educate students who are able to think and act upon the issues presented to them as administrators, planners, or practitioners in the field of library work. The emphasis of the education should be intellectual and theoretical so that librarians can think creatively about whatever area of librarianship they may be concerned with. Because of the continual change in the nature of libraries and librarianship it is not possible for library educators today to foresee all the needs of the future. Therefore, they should endeavour to educate librarians who can analyze problems and then work out their own solutions. Library education should provide a methodology which will enable librarians to function in any situation."

Pending receipt of an interim report from the Committee on Curriculum, no major changes in B.L.S. or M.L.S. courses have been proposed for the 1968-69 academic year.

Provincial Support

Two recent developments in Ontario – formula financing and graduate fellowships in library science – have affected the amount of financial support for programmes and for students in library science. In 1966-67, the Province of Ontario introduced formula financing, a scheme whereby the province makes operating grants to the fourteen provincially supported universities based on enrolment figures and a table of weightings for each degree programme. Under formula financing, the B.L.S. programme is given a weighting of 1.5 and the M.L.S. programme one of 3 on a scale running from 1 to 6. Under the present weighting, the operating grant payable to the University of Toronto for library science programmes does not cover the operating expenditures of the School. Despite appeals from the Director, the weighting for the B.L.S. programme seems unlikely to be increased.

During the 1966-67 and 1967-68 academic years, there had been a special Ontario Library Fellowship programme for the support of M.L.S. students. In January 1968, the newly formed Ontario Committee of Deans and Directors of Library Schools prepared a *Brief regarding Provincial Fellowships for Library Students* (both B.L.S. and M.L.S.) and forwarded it to the Department of University Affairs for consideration. Subsequently, the government announced that, beginning with the 1968-69 academic year, library science was to be included in the Ontario Graduate Fellowship programme. Briefly, this programme provides for awards of \$1,500 (with summer supplements of \$500) for those proceeding to a "graduate" degree in library science, i.e., the M.L.S. degree. Because of disparities in the structure of degree programmes between Toronto and Ottawa on the one hand and Western Ontario on the other, there was considerable difficulty in determining on what basis M.L.S. students might qualify. Since Toronto had only five full-time M.L.S. students compared with 192 full-time B.L.S. students in 1967-68, any satisfactory fellowship programme for library science students must also include B.L.S. students. B.L.S. students are not, however, eligible for Ontario Graduate Fellowships. Moreover, it seems improbable that the Ontario government will extend its present fellowship programme to include B.L.S. students.

Accreditation

The programme leading to the degree of Bachelor of Library Science was first accredited in 1937 under the standards of the American Library Association. In 1956, the School was reaccredited by the American Library Association under its 1951 standards which have been endorsed by the Canadian Library Association. In January 1968, the Committee on Accreditation of the American Library Association,

in keeping with its new policy of a continuing annual review of accredited library schools, reaffirmed accreditation of the University of Toronto School of Library Science. The School of Library Science is one of forty-two accredited library schools in the United States and Canada, one of three accredited library schools in Canada, and the only accredited library school in Ontario. The School is a member of the Association of American Library Schools and of the Canadian Association of Library Schools.

The Library

Mrs. Asta Luik, the Chief Librarian of the School, reported an increase in total circulation of books and periodicals of 38.5 per cent over 1966-67. This is attributed to increased enrolment in both the B.L.S. and M.L.S. programmes, extended library hours, increased periodical subscriptions, the availability of photocopied periodical articles, increased availability of course-related publications, reduction of the number of titles on closed reserve, and the introduction of two lecture-free study weeks during the second term. During the year, 1,955 titles were catalogued, a 52.7 per cent increase over the previous year. Total holdings as of May 31, 1968, were 30,285 volumes, an increase of 16.7 per cent over 1966-67. The number of serial titles currently received has risen from 1,212 for May 31, 1967, to 1,569 for May 31, 1968, an increase of 29.5 per cent. Several notable items were acquired for the Library, including the *Catalogue générale des livres imprimés; Auteurs*, published in 206 volumes by the Bibliothèque Nationale, Paris.

Applications

By June 30, 1968, approximately 650 applications for admission to the 1968-69 session of the programme leading to the degree of Bachelor of Library Science had been received compared with 475 received by the same date in 1967, an increase of nearly 37 per cent. Enrolment for the 1968-69 session is officially limited to 185 but the School is prepared to accept approximately 200. This means that there are many applicants who meet the minimum admission requirements who cannot be accepted. This situation is likely to continue until the School moves into its new quarters.

Quarters and Facilities

Since the earliest possible completion date for the new building is September 1970, the School faces at least two difficult years ahead when its resources, both physical and human, will be stretched to the limit. One of the major difficulties to be faced is how to build up the faculty and essential supporting staff in order to prepare for the move into the new building at a time when our present physical resources, and, indeed, those of the University, are already overtaxed.

During the year, increasing use was made of closed-circuit television and videotapes to support the teaching programme. It is too early to assess the effects of closed-circuit television but the faculty believes it can be particularly useful in several ways: by allowing us to tape programmes in advance under the best possible circumstances for later broadcast; by allowing us to show "live" or on videotape talks by visiting lecturers and others who are not available on a continuing basis; by permitting us to videotape and present material which could not otherwise be presented satisfactorily to a large class (e.g., a videotape of how unit record equipment works); and by allowing students to see themselves on videotape, giving book talks or other presentations.

New Media in Libraries

On December 1, the School sponsored a one-day Colloquium on New Media in Libraries attended by approximately 175 persons. Those appearing on the programme and their subjects included: Albert W. Bowron, Chief Librarian, Scarborough Public Library, "The Public Library and the New Media"; F. Eugene Gattinger, Assistant Director for Public Services, York University, "Library Skills via Mediated Capsules";

Rudolph C. Ellsworth, Head, Reference and Research Division, Queen's University at Kingston, "Library Orientation at Queen's University"; Mrs. Joyce K. Sowby, Assistant Librarian, Scarborough College, University of Toronto, "Library Orientation at Scarborough"; Robert J. Garen, Extension Librarian, Wayne State University, Detroit, "Teaching Academic Library Use through Media"; and Dr. Patrick R. Penland, Professor and Director, Division of Library Science, Southern Connecticut State College, New Haven, and Visiting Professor, School of Library Science, University of Toronto (first term, 1967-68), "The New Media and Professional Education."

Automation and the Library

The data processing laboratory has been used extensively in the past year. For the first time, B.L.S. students as well as M.L.S. students used the laboratory equipment for creating computer programmes and preparing data which were then tested on the IBM 7094 model II computer. B.L.S. programming projects included circulation control and preparation of keyword-in-context (KWIC) indexes. M.L.S. students developed book-catalogue programmes and circulation control applications. As part of the Cataloguing and Classification course, manual filing exercises were developed for student self-correction using data processing equipment in the laboratory. Instructions for the use of machines in the filing exercises were presented through a closed-circuit television sequence recorded on videotape.

The Library Automation Research Group (LARG), with the continued support of a National Research Council operating grant, has intensified its investigations into mechanized applications in libraries. A computer programme for file conversion from single-case character set machine-readable files to upper-and-lower-case character set was successfully developed and reported at the annual conference of the American Documentation Institute. A report on the correspondence of subject concepts in current Library of Congress catalogue information and titles in the fields of Physics and Engineering is being prepared. The System/360 model 50 has been used to develop several test programmes for the IBM 2260 console display station. A demonstration programme illustrating the use of the console for computer-aided instruction and permitting data to be entered, manipulated, and revised at the console was successfully developed. The experience gained in developing the console programmes has been utilized in establishing specifications for subroutines for servicing remote console applications. The IBM 2302 random access disc file was used to test access times for indexed information stored on disc. A set of subroutines for loading, reading, and writing the disc file has been developed and will permit more rapid access to data prepared for input to student programmes and for further research into file organization. A number of development projects involving departmental library personnel and students from LARG have been initiated and are nearing implementation.

Workshop on Library Automation

On March 7-8, the School of Library Science was host to the annual invitational Workshop on Library Automation sponsored by the Canadian Association of College and University Libraries Committee on Mechanization. Forty-five participated in discussions centred on the theme "Bibliographic Exchange of Information." The opportunity for informal and formal discussion by systems personnel involved in library operations across Canada culminated in a resolution to seek co-ordination support from the Association of Universities and Colleges of Canada. Proceedings of the Workshop will be published with recorded discussion.

Enrolment, Graduation and Placement

Toronto continued to have one of the largest full-time enrolments of any accredited library school in North America. Full-time enrolment as of December 1, 1967, was 192 in the B.L.S. programme and 5 in the M.L.S. programme. During

1967-68, 191 B.L.S. degrees and 8 M.L.S. degrees were conferred, the largest number in the forty-year history of the School.

For the past three years, the School has published an annual *Placement and Salary Survey* of its new graduates. Preliminary figures for 1968 graduates indicate that, of the 161 graduates placed to date, 44 per cent are employed in academic libraries, 28 per cent in public libraries, 16 per cent in school libraries, and 12 per cent in special libraries, continuing the trend evident in recent years.

Alumni Relations

During the year, the School of Library Science Alumni Association sponsored four events: an Open House for alumni at the school on October 28, in conjunction with the annual University of Toronto Homecoming Weekend, with graduates of 3T7, 4T7, 5T2 and 5T7 as special guests; a reception on April 18 for alumni and members of the class of 6T8 to mark the fortieth anniversary of the School; a reception for 6T8 graduates, their families and friends following the Spring Convocation on June 7; and a reception on June 12 for alumni attending the annual conference of the Canadian Library Association at Jasper, Alberta.

Faculty and Staff

Mrs. Helen L. Godwin, who had served as Secretary to the Director since 1963, retired on June 30, 1968, after sixteen years of faithful service to the University. Miss Mary I. Mustard also retired after having served as a Teaching Assistant since 1964. New appointments to the Faculty include Donald J. Forgie, who joined the School January 1, 1968, as Associate Professor, and Mrs. Delores J. Phillips, who will be a Teaching Assistant for 1968-69. Miss M. Jane Laird will join the staff on November 1, 1968, as Administrative Assistant.

Members of the faculty and staff continued to be involved in professional activities; details are given elsewhere in this report. Three faculty members, however, deserve special mention and congratulations: Bertha Bassam, Professor Emeritus and Director Emeritus, Katharine L. Ball, Professor, and Mary I. Mustard, Teaching Assistant, were awarded Centennial Medals for distinguished service to Canada.

R. B. LAND

THE DEAN OF THE FACULTY OF FORESTRY

Under present circumstances, one cannot write a report on behalf of the Faculty of Forestry without again making reference to the problem of space and accommodation which is becoming increasingly serious. This matter has been brought to the attention of the University authorities on a number of occasions, most recently in a brief submitted to the President's Council on October 10, 1967. The critical nature of this problem will be apparent from the following facts:

1. Over the past few years the demand for graduates from the first degree course in Forestry has been three to four times the number available. Similarly there has been a marked increase in the number of positions in forestry requiring qualification at the postgraduate level.

2. Partly as a result of these trends, but also in keeping with the growing interest in university education generally, the registration in Forestry at the University of Toronto will nearly double over the period 1966 to 1968 as shown by the following figures comparing enrolment for the different programmes in 1966-67 with the expected enrolment for 1968-69:

Year	Undergraduate degree	Postgraduate degree	Diploma	Total
1966-67	84	12	5	101
1968-69	160	22	8	190

3. These last figures are rapidly approaching what is believed to be the optimum for the Faculty (200, 40, 10, 250) within the next few years, having in mind programme development and potential demand; however, they already exceed the capacity of the physical plant. Thus, in the Forestry Building there is but one lecture room that will accommodate more than 35 students, and in 1968-69 classes in the first, second and third years will exceed 40 students each; office space, which is in short supply, is now being provided by subdividing small lecture rooms, a process which will soon be non-recurring.

In view of the increasing urgency of the problem and the difficulty the University appears to have in dealing with it, there is perhaps some justification for examining the place of a forestry school within a large urban or metropolitan university.

Certainly so far as the Faculty itself is concerned, there are great advantages in being closely associated with a university having strong departments in the physical, biological and social sciences as well as in engineering. This becomes increasingly so as postgraduate programmes are developed and as the scope of forestry itself is broadened to provide more adequately for the management of our natural resources as an important factor in man's environment as well as a source of raw material for industry. As has been stated in connection with similar developments in the United States, "A program of this nature involving ecological and socio-economic aspects of forestry would not be possible save in the setting of a great university."

In this connection, it should be pointed out that the idea that a forestry school should be located in a heavily forested area is superficial and analogous to the thought that a faculty of medicine be located in a hospital or an institute of child study in a crèche. It is true that a great deal of field-work is associated with the course in forestry, but this should take place under a wide range of conditions, and the sites must be carefully selected in relation to broad soil and floristic types, which in Ontario are represented for our students by at least four field stations.

For the University itself, as viewed in either a provincial or a national context, there would seem to be some justification for including at least one discipline in its organization that is directly concerned with the development and management of this country's natural resources. If this is not acceptable, then an alternative arrangement should be sought. If it is acceptable, then the full support of the University should be behind the efforts of the Faculty to meet its obligations and responsibilities.

Although there has been a marked increase in student registration over the past two years, the Faculty of Forestry still remains a relatively small academic community within the larger University. This has many obvious advantages of close association and reasonably effective communication between staff and students. During the past year this relationship has been formalized by the establishment of a staff-student co-ordinating committee and the appointment of students to certain of the Faculty committees on which their views and recommendations are expected to be most helpful.

Apart from the rapid growth in student and enrolment, probably the most significant happening for the Faculty of Forestry during 1967-68 was the increase in support for research and postgraduate studies, particularly through an operating grant of \$40,000 from the federal government. This, together with a number of individual grants to staff members from various sources, has made possible a considerable expansion in our programme. Among other things, a beginning has been made in a study of forest productivity at the Englehart Management Unit within the Boreal Forest. Here it will be possible to study in both natural and man-made forests the processes of plant growth and timber production in relation to a number

of variable factors. This programme, which has been planned for some time, is being undertaken in co-operation with the Department of Lands and Forests and the Department of Forestry and Rural Development.

A number of postgraduate students in Forest Soils and Silviculture have based their research studies on various aspects of this overall project, and at the same time a greater range of studies in these fields is possible at the Glendon Hall Laboratory where facilities have been improved over the past year. In particular, studies of the chemical properties of forest soils and the factors affecting the production of container-grown seedlings are now receiving major attention. In addition, laboratory facilities for soil biological studies have been provided at this Unit.

The Shade Tree Research Laboratory, with support from the Department of Lands and Forests, has made considerable progress in developing a Superior Shade Tree Programme, the purpose of which is to select and develop the best possible stock from native species for use in cities and parks and particularly to replace exotics that are subjects to pests of various kinds.

Three new scholarships have been established in the Faculty of Forestry during the past year, as follows:

(a) The Charles H. Pinhey Forestry Scholarship established by the Ottawa Board of Trade in memory of the late Charles H. Pinhey of Ottawa, to be awarded as an admissions scholarship to a student of high academic standing and preferably from a secondary school in the Ottawa area.

(b) The W. A. Delahey Scholarships established from a fund left to the University of Toronto by the estate of the late W. A. Delahey. These scholarships are to be awarded to students standing first and second on the basis of examination results at the end of the first year of the undergraduate degree course.

(c) The Weyerhaeuser Scholarship established through a fund granted by the Weyerhaeuser Company Foundation. This scholarship is to be awarded to the third year student making the highest standing in the subject Silvics and Silviculture.

Through support from the School of Graduate Studies, the Faculty was able to invite a number of outstanding forest scientists as guest lecturers during the year: Professor Ivan A. Klemencic, University of Ljubljana, Yugoslavia, on "The Optimal Density of Logging Roads under Certain Conditions"; Dr. Z. Koran, Pulp and Paper Research Institute of Canada, on "The Electron Microscopy of Wood Fibre Surfaces"; Dr. R. Knowles, Macdonald College of McGill University, on "Nitrogen Transformations in Black Spruce Humus"; Dr. E. M. Gould, Jr., Harvard Forest, Harvard University, on "Modelling the Forest Planning Process for Computer Analysis"; Professor Ivar Samset, Norwegian Forest Research Institute, on "Logging Research in Norway"; Dr. Paul O. Rudolf, Lake States Forest Experiment Station, on "Reforestation in the Lake States."

In February 1968, an interesting seminar-conference was held on the subject "Herbicides in Forest Management." This was sponsored primarily by the Ontario Professional Foresters Association, though in close co-operation with the Faculty. It is planned to continue arrangements for this type of technical and professional course on a co-operative basis, alternating the primary responsibility between the Association and the Faculty.

Members recently appointed to the staff of the Faculty are Dr. K. L. S. Harley (Entomology) of the Cunningham Laboratory, Brisbane, Australia; Dr. Z. Koran (Wood Science) of the Pulp and Paper Research Institute of Canada; and Dr. J. C. Nautiyal (Forest Economics) of the East Almora Forest Division, India.

Mr. G. Angus Hills, well known to many for his work in land classification with the Research Branch of the Department of Lands and Forests, has also joined the Faculty staff as Research Associate. His main responsibility at the present time is the organization and presentation of a summer graduate course in Ecological Land Use Planning which is being given as a composite lecture and field course.

J. W. B. SISAM

THE DEAN OF THE ROYAL CONSERVATORY OF MUSIC

The Royal Conservatory of Music suffered a grievous loss on June 1, when Dr. Ettore Mazzoleni, for many years Principal of the School of Music, was killed in a motor accident. During his long and faithful service to the institution, he had become very well known across the whole of Canada owing to his active participation in the Conservatory's examination system. During the time when he combined the positions of Principal and Director of the Opera School, he succeeded in laying the foundations of a training-ground for actor-singers which is rapidly becoming internationally famous. The culmination of his work in the MacMillan Theatre was the world première of Healey Willan's *Deirdre*, which he conducted himself, and which turned out to be a landmark in the history of Canadian opera. As administrator, examiner, conductor and teacher, he will be very difficult to replace.

Faculty of Music

The current year brought an unusual number of staff changes, the most significant being those related to the administrative reorganization occasioned by the retirement of the Director, Dr. Arnold Walter. Dean Neel will assume the duties of Acting Director. Assisting him will be an administrative committee of four professors, each with his special departmental responsibilities: Professor Ciamaga (Theory and Composition), Professor Olnick (History and Literature), Professor Rosevear (Music Education) and Professor Schabas (Performance). Professor Olnick has also been designated Chairman of the Graduate Department in Music. Leaving the Faculty will be Professor Richard Johnston and Professor Ward Cole, who are moving to the University of Calgary as Dean of Fine Arts and Head of the Music Department, respectively, and Mrs. Natalie Kuzmich, who has accepted a professorship at the College of Education.

After serving successively as Director of the Senior School from 1945 to 1952 and as Director of the Faculty since 1952, Dr. Walter laid down his administrative responsibilities at the end of the current academic year, but he will continue to teach in the Graduate Department. Music instruction in the University now bears little resemblance to what was available in the mid-forties, when he started building the Faculty. It has been a truly exciting era of challenges, opportunities and, of course, problems and frustrations. On retiring from the Director's position, Dr. Walter stated his gratitude for the support of his colleagues on the teaching staff, to the many individuals who made possible the orderly operation of a university music school and to the administration of the University. He made special acknowledgment to the contribution of Professor Robert Rosevear who, after fifteen years as his valued assistant, relinquished that post to concentrate on teaching and the developing of the Music Education Department. Dr. Walter expressed his sincere appreciation for the support given him by the Secretary of the Faculty, Mrs. Florence Fish, and her efficiency and tact in dealing with the complex problems of her office. He also acknowledged the capable and loyal service of his personal secretary, Mrs. Carol Burke, and of Mrs. Edith Binnie, whose work as Information Officer contributed so much in the fields of promotion, concerts and placement. Arnold Walter's achievement over the years has been outstanding, and it is good to know that the Faculty of Music is not losing him.

After a careful consideration of the implications of a progressively larger enrolment of full-time music students, the Faculty of Music decided to limit the size of the entering class effective with the session 1969-70. This decision takes into account the facilities of the Edward Johnson Building and the size of our teaching staff. Changes in admission requirements, together with greater selectivity in screening applicants, should increase our effectiveness as a professional music school. Corresponding restrictions have been imposed on the honour course in music by the

Faculty of Arts and Science. These changes, however, will not affect our continuing offering of music courses to non-professional students from other faculties and through the Division of Extension.

As part of our programme to publicize the offerings of the Faculty of Music and to attract capable applicants, an Open House was conducted in November. The event brought to the campus 219 students from 125 secondary schools. Opportunities were provided to hear student soloists, chamber groups and the concert band, to tour the building and the campus and, especially important, to learn about the University programme for music study. The effectiveness of the event was a credit to Mrs. Edith Binnie and to the students and staff members who took part in the planning.

The enrolment during the current year stood at an all-time high of 286 full-time students. The Faculty was also responsible for music instruction in the honour course in music and provided cultural courses in music for 1,036 students from Arts and Science.

The deliberations of the newly created staff-student liaison committee were watched with great interest. This group of seven students and three staff members (all chosen by the student body) was under the chairmanship of Mr. Barry Cole, fourth-year student in Music Education. It made a number of recommendations on matters such as curriculum, administrative procedures, teaching methods, admission requirements, selection procedures, and special events. The recommendations were considered by the administration and by the Council, and appropriate action taken. Constructive student-staff dialogue will continue.

Faculty of Music large ensembles, chamber groups and soloists performed at a number of sister universities. An exchange with students of McGill brought Montreal musicians to our Concert Hall and our students visited both McGill and l'Université de Montréal. Other appearances of student musicians included a Canada Council sponsored tour of the Maritime universities by the Faculty of Music Woodwind Quintet, chamber music programmes at McMaster, Queen's, Guelph, Laurentian, Brock and Waterloo universities, programmes of the Concert Band at the University of Guelph, the University of Waterloo and Scarborough College, and appearances at Bennington College at the Student Composition Symposium.

Within the University, performing groups and individual musicians were also very active. In the MacMillan Theatre the orchestra gave outstanding support during five Opera School productions and the Concert Band presented two public concerts. The extensive and varied chamber music programme continues under the supervision of Professor Schabas, with faculty coaches assisting. Music of the baroque and early classical periods was performed by singers and instrumentalists in the Collegium Musicum, guided by Miss Greta Kraus, while Mrs. Carol Pack's Madrigal Group recreated the vocal polyphony of the Elizabethan era. The student-sponsored Contemporary Music Group in weekly sessions brought interested members of the University together to perform and discuss the modern repertoire. Students also sponsored a jazz workshop. The Thursday afternoon lecture-recital series presented staff and visiting lecturers and recitalist performances by student instrumental and vocal ensembles. Support from the Graduate School made possible another series of lectures by distinguished visiting musical scholars, together with graduate seminars.

An exciting finale to the year's Special Events Chamber Music series was a recital by Professor Lorand Fenyves, in which he was assisted by an ensemble of student musicians. The year's roster of internationally famous ensembles included the Berlin Philharmonic Octet and the Amadeus, LaSalle, Guarneri and the Early Music Quartets. All devotees of chamber music will rejoice that the designation "The Orford Quartet of the University of Toronto" was confirmed during the spring. This magnificent ensemble of brilliant and dedicated young musicians will be a continuing inspiration to our students, a joy to concert audiences everywhere and a jewel in the crown of the sponsoring university.

The growth of the Edward Johnson Library brings with it an embarrassment of riches in the form of increasing demands for space for readers, staff and especially for the magnificent and constantly expanding collection of phonograph records.

Miss Jean Lavender, the Librarian, and her staff provide service not only for our own students and teachers, but for all musically interested members of the university community.

School of Music

At the beginning of my report I have referred to the tragic loss the School has suffered in Dr. Mazzoleni's death. Dr. David Ouchterlony, who was previously the Director of Branches, has taken over the work of the Principal until a successor to Dr. Mazzoleni is appointed.

For most of the academic year the facilities of the School of Music were used to capacity. Once again the Special Courses proved their value and enrolment was at maximum level.

It has been an active year for the Study Revision Board. Each of its component committees has reviewed, or is reviewing, the requirements and standards of each of the practical and theoretical subjects. Some review areas are still at committee level; others have been completed and the recommendations approved. This review programme will continue until 1969 by which time all syllabi, grade book publications, graded requirements and examination regulations will have been thoroughly scrutinized and updated.

A completely revised syllabus in Speech Arts and Drama has been issued. New syllabi in Organ, Singing, and String Instruments are in process of publication. The biennial edition of the Piano and Theory syllabus has been prepared for distribution at the customary closing of the academic year. The Classical Guitar syllabus, awaiting only final approval, will be available for incorporation into the national examination system during the 1968-69 season. A recommendation that the Conservatory offer an introductory examination of approximately Grade II level in certain of the wind instruments more commonly used in school bands was taken under advisement. Opinion concerning the recommendations was solicited from those responsible for instruction in the respective instruments in the school music programmes and received unanimous approval. It was further urged that the additional grade be initiated during the midsummer session of next year. The additional administrative problems are more than offset by the benefits to the beginner instrumentalists.

Revised Pianoforte books for Grades VII and VIII, together with new books of Pianoforte studies for Grades VII, VIII, IX and X have been prepared. New Violin publications and various pamphlets on pedagogy and methodology are scheduled for preparation and will be introduced at an early date.

Because of a slightly reduced number of teachers, the number of students enrolled at the Conservatory Branches was somewhat smaller during the past year. In spite of this, there was a significant increase in the number of students heard in audition and in requests for assistance in the solving of many musical problems in various parts of Metropolitan Toronto. In this and other connections, it would seem that we are achieving the long-cherished hope that each Branch, over and above the matter of geographical convenience, is becoming a virtual hub of musical activity in its respective area.

The Publicity Department this year processed flyers and programmes for the CNE Recitals and for the four major Opera School productions. The varitype machine was used to prepare offset copy for 125 student recitals, Summer School flyers and description bulletins, the Year Book, Speech Arts and Drama and Piano and Theory syllabi, the Symposium programme, as well as a number of other brochures and forms. The Department varityped five issues of the Conservatory Bulletin which were addressed and mailed to a total of 15,000 addresses maintained in the office.

The MacLaren Advertising Agency campaign for advertising included local newspaper coverage for the fall term opening, Opera School audition dates, country-wide newspaper coverage for the midwinter and midsummer examinations and examination application closing dates. Additional newspaper advertising was purchased for the Summer School Special Events concerts and the CNE recitals. Two hundred papers throughout the country were sent dates of local examinations,

examiners' pictures and biographical information during the January-February and May-June examination sessions. The local newspapers and radio stations were helpful in publishing releases and announcing Conservatory events. Twenty-six music festival programmes and music publications also carried Conservatory ads this year.

Promising and well-established performers chosen from Conservatory students, recent graduates and teachers were featured at the 15 CNE recitals, and nine Art Gallery of Ontario recitals. Church organists and soloists, lecturers, festival adjudicators, music teachers and performers found positions through the office. Although the majority of requests for performers were filled by the Information Office of the Faculty of Music, a number of students were engaged by the Office to manage the Conservatory booth at the CNE and to assist with the mailing of the Bulletin. The Publicity Department was once again the liaison between the host school of the Annual Student Composers' Symposium, Bennington College, Vermont, and the 25 Conservatory faculty student composers. The next Symposium will be held at McGill University during March 1969.

Opera School

There is no doubt that the department of the Royal Conservatory which has made the greatest strides in recent years is the Opera School. When one sees one of its productions today, and compares it with its performances even only a few years ago, the progress that has been made is clearly astonishing. A lot of the credit for this must go to Mr. Peter Ebert, who became its director in the year 1966-67. His dynamic personality and knowledge of every facet of the world of lyric theatre were never more evident than in his final production this year of Debussy's *Pelléas et Mélisande*. Everybody who saw this was agreed that it was not only the finest operatic performance the School had ever achieved, but could also take its place among the half dozen best operatic productions that Canada has ever seen. As many eminent critics observed, it was quite impossible to realize that singers, stage technicians and orchestra were all student amateurs, some of them taking part in an operatic production for the first time.

The fame of these Opera School performances has now spread abroad – the London *Times* has commented on its work. The Montreal *Star* sent its critic to review the *Pelléas* production, and he not only gave it what is usually described as a "rave review," but also devoted a whole page of his paper the following week to an article on the School, deploring the fact that no other city in Canada, especially Montreal, has anything remotely to compare with the work going on in Toronto. This was indeed high praise from the Quebec city, which is apt to pride itself on its not too infrequent operatic performances.

Unfortunately, Mr. Ebert, after much serious thought, decided to accept the directorship of the Augsburg Opera in Germany, a position of great importance in the operatic world as Augsburg is one of the major opera theatres of Germany. He, therefore, left us at the end of this year. We have, however, been fortunate to obtain the services of Mr. Anthony Besch, well-known operatic director of Covent Garden, Sadler's Wells and the Aldeburgh Festival. We are confident that he will prove a worthy successor to Mr. Ebert and that the work of the school will continue to go from strength to strength.

The courses for stage technicians were obviously very much needed, as there has been no lack of students who wish to enter them. So many theatres are now being built in Canada that the need will become even more pressing in the years ahead. These students had the inestimable advantage of Mr. Brian Jackson's direction in scenic design and his classes have been one of the highlights of the school's work.

Besides the production of *Pelléas et Mélisande*, other operas given were: Stravinsky's *Oedipus Rex*, Mozart's *The Magic Flute*, Monteverdi's *Il Combattimento di Tancredi e Clorinda* and the North American première of *The Unwilling Physician* by Salvatore Allegra. At the end of the season, Mr. Herman Geiger Torel, who has had a close association with the school for many years, directed the students

in three nights of excerpts from an astonishing variety of operas, and the quality and quantity of the school's talent was displayed by the fact that, in some two dozen scenes performed on the three nights, there was hardly a duplication in casting.

Summer School

The 27th Summer School of the Royal Conservatory of Music was held from July 3 to 22, 1967, and was a successful one from the point of view of quality of work offered, work accomplished, and ancillary activities. The usual courses were offered again and we were most pleased to have Maureen Forrester with us for the third time. Her master classes have few equals. This year we had a course in Electronic Music which was made possible by the new electronic installation in the School of Music building. The course was taught by Dr. Samuel Dolin and attracted students from coast to coast. The Electronic Music Course was also one of the Special Events which caused considerable interest among the students and public.

The MacMillan lecturer for 1967 was Dr. G. Welton Marquis, Head of the Music Department of the University of British Columbia. Dr. Marquis took as the title of his three lectures "Music in the Community." In addition to Miss Forrester's concert, the Summer School presented Anton Kuerti and Pierre Souvairan, pianists; Lorand Fenyves, violin; Douglas Bodle, organist; and Joseph Macerollo, accordian. To this list of artists was added Mr. Horace Lapp, who played an evening of "Improvisation" and, in a sense, even revived the ancient art.

The annual course of Carl Orff's "Music for Children" was successful as usual. We were sorry to lose the services of Mr. Daniel Hellden of Stockholm, who was ill, but were grateful to find a valuable substitute in Maria de Lourdes Martins of Lisbon.

BOYD NEEL

THE DEAN OF THE SCHOOL OF GRADUATE STUDIES

Last year's report described an extraordinary increase in enrolment of 31.7 per cent, as against a predicted increase of 12.8 per cent. In 1967-68 enrolment again exceeded estimated growth, but this time by a much narrower margin. Table 1 below shows an increase from 3,938 to 4,723, or 19.9 per cent. The growth had been estimated at 11.6 per cent.

Once again, the growth was sharpest in the Graduate Department of Educational Theory, which, as last year's report explained, is more responsive to the needs of the Ontario Institute for Studies in Education than to the judgment of the School of Graduate Studies. After an increase in 1966-67 of 123 per cent, its growth during 1967-68 had been estimated at 18.5 per cent; in fact, it increased by 34.4 per cent. Setting aside Educational Theory, enrolment "above the line" increased by 16.9 per cent as against the predicted 10.2 per cent.

Full-time enrolment "above the line" increased by 534, or 19.2 per cent; the growth had been forecast at 386, or 13.9 per cent.

Part-time enrolment "above the line", after last year's jump of 68.5 per cent, remained approximately constant (up 3.8 per cent). The long-term trend in this sector is not clear. During the first four years of the decade, part-time enrolment held approximately constant as an absolute number, while declining as a proportion of the total enrolment; from 1964 to 1966, the actual numbers fell during a period of rapid increase in the rest of the School, so that the proportion of part-time to the whole fell rapidly, reaching an all-time low of 10.8 per cent. Last year's jump in

TABLE I
Enrolment in the School of Graduate Studies 1966-68, with Estimated Enrolments 1968-76

	Actual Enrolment 1966-67			Estimated Enrolment ¹ 1967-68			Actual Enrolment 1967-68			Estimated Enrolment 1970-71			Estimated Enrolment 1975-76		
	FT	PT	Total	FT	PT	Total	FT	PT	Total	FT	PT	Total	FT	PT	Total
<i>Division I</i> Humanities	893	216	1,109	1,090	175	1,265	1,097	207	1,304	1,220	200	1,420	1,470	200	1,670
<i>Division II</i> ² Social Sciences (excl. Educational Theory)	555	110	665	525	130	655	705	130	835	780	130	910	860	130	990
<i>Division III</i> Physical Sciences & Mathematics	886	136	1,022	1,070	90	1,160	1,027	134	1,161	1,160	130	1,290	1,380	130	1,510
<i>Division IV</i> Life Sciences	440	27	467	475	40	515	479	37	516	570	40	610	680	40	720
SUB-TOTAL Educational Theory	2,774	489	3,263	3,160	435	3,595	3,308	508	3,816	3,730	500	4,230	4,390	500	4,890
	151	524	675	200	600	800	256	651	907	270	700	970	275	700	975
TOTAL	2,925	1,013	3,938	3,360	1,035	4,395	3,564	1,159	4,723	4,000	1,200	5,200	4,665	1,200	5,865

¹As given in last year's report.

²Library Science figures are included in Division II.

part-time enrolment brought it up to 14.9 per cent. The very modest increase this year suggests that it is leveling off again (it is now 13.3 per cent of the whole). Without very much confidence, it is shown in the forecasts at approximately the present level.

When enrolment is expressed in terms of full-time equivalents (part-time students being reckoned as equivalent to one third of a full-time student) a most interesting phenomenon emerges. Table II below shows that the full-time-equivalent enrolment "above the line" grew by 540, or 18.4 per cent. In 1966-67, it grew by 460, or 18.5 per cent. What this means is that when the increase at OISE is disregarded and the increase in part-time enrolment is calculated in terms of full-time equivalence, the proportionate growth shown by this year's more modest total increase is exactly the same as that of last year's extraordinary total.

TABLE II
Current and Projected Enrolment in Terms of Full-Time Equivalent Students

	1966-67	1967-68	Estimated		
			1968-69	1970-71	1975-76
<i>Division I</i>	965	1,166	1,287	1,537	1,867
<i>Division II*</i> (excl. Educational Theory)	592	748	823	903	993
<i>Division III</i>	931	1,072	1,203	1,423	1,793
<i>Division IV</i>	449	491	583	693	893
SUB-TOTAL	2,937	3,477	3,896	4,556	5,546
<i>Educational Theory</i>	326	473	503	508	534
TOTAL:	3,263	3,950	4,399	5,064	6,080

*Library Science figures included in Division II.

The unrelenting enrolment growth (122 per cent increase in full-time enrolment "above the line" in 5 years) intensified during the year the growing-pains noted in last year's Report, and courses grew even larger, supervising loads heavier, rooms and offices more crowded, staff more overworked, library resources even more thinly stretched, and committees even more numerous. Furthermore, it became clearer than it had been that the distribution of the burden was regrettably uneven: some departments were literally impacted, with no room to squeeze in another body or an additional desk, while other departments would have been glad to accept further students.

As these facts were making themselves manifest, a new factor emerged: applications for admission to the 1968-69 session began to arrive in significant numbers much earlier than in previous years, and the volume grew steadily and rapidly. By March of 1968, the number of applications for admission was more than double the number received by the same date the year before. Furthermore, a very large proportion of the applications were for precisely those departments which had already expanded too rapidly. The case for defining the University's ultimate graduate enrolment goals, set out in last year's report, was clearly growing more urgent. (In the event it turned out that the actual growth in volume of admissions applications was less striking - about 28 per cent - than the forward shift in timing; furthermore, by the time the admissions period was complete, the distribution between the various sectors of the Graduate School was much more nearly even than it had been in March.)

As a first step towards the definition of enrolment goals, the problem was discussed in the Council of the School of Graduate Studies, in the Divisional meetings, in the Resource Planning Committee of the President's Council, and in the

President's Council. A general consensus was achieved that enrolment must be controlled in the impacted areas, while further growth should be encouraged in the areas that warranted it. In a general way, this was understood to mean a slowing down of growth in Divisions I (Humanities) and III (Physical Sciences), with a continuation of momentum in Divisions II (Social Sciences) and IV (Life Sciences); there would, of course, be exceptions for departments which did not share in the conditions generally characteristic of their divisions.

While these general discussions were proceeding, detailed discussions were being carried out with all the departments which were judged to have expanded more rapidly than was desirable in the past year; in all cases, agreement was reached on what would constitute an acceptable enrolment in the coming year.

Thus supported in its views, the School of Graduate Studies proposed to the Resource Planning Committee that it support a recommendation that the School be authorized, but not required, to limit full-time enrolment for 1968-69 to 10 per cent above the 1967-68 level. This would constitute the School's first authorization to impose a general enrolment limit, as distinct from its duty to limit enrolment in any particular department in order to maintain quality, and the proposal was put in an enabling rather than a mandatory form so that the School would possess sufficient flexibility to recognize variation of circumstances that might justify an over-all increase greater than the specified 10 per cent. The Resource Planning Committee unanimously supported this recommendation, as did the President's Council, and it was approved by the Board of Governors in April.

There followed throughout the spring and early summer a round of intensive consultations with all departments, centres, and institutes in the School. Without exception, these discussions were marked by full understanding and co-operation, with both sides anxious to avoid the evils of overstraining our resources while at the same time eager to ensure their full utilization. In each case, agreement was reached about the acceptable number of new and continuing students for all levels of graduate degree enrolment. How these agreements will be reflected in next year's enrolment pattern remains to be seen, since many departments have little experience in administering an enrolment quota. Regardless of minor, unintended variations, however, the shared experience of a general planning initiative constitutes a long step towards the formulation by the university of its long-term graduate enrolment goals.

It should be noted that the forecasts in tables I, II and IV will be affected by these decisions. Because the pattern that will emerge is still very tentative, the forecasts (which are based upon the extrapolation of existing curves) have been left unchanged, but next year's forecasts will probably show a reduction for Divisions I and III, and a corresponding increase for II and IV.

Increased enrolment was only partly reflected in the number of graduate degrees awarded this year. Table III shows an increase of 124, or 10.3 per cent, which is a much slower rate of increase than in the preceding two years (17.7 per cent and 24.6 per cent, respectively). The largest factor in this slowdown is the M.Sc. degree, whose numbers actually declined this year. The M.Sc. is a relatively new degree, awarded for the first time in 1965-66 (previously, students in science subjects had taken the M.A. degree). At first it was very popular, the number conferred growing from 32 in its first year to 183 in its second.

There are several factors which explain the current decline in numbers. Like the M.A., the M.Sc. is available both as a terminal degree and as propaedeutic to the Ph.D.; in practice, the latter function is more predominant than with the M.A. The reduced number is in part a reflection of this emphasis: instead of taking the M.Sc., some students who have during their year as a candidate for the M.Sc. demonstrated their competence to the satisfaction of the department now waive the M.Sc. and convert their enrolment to advanced standing in the Ph.D. programme. Although this constitutes an appreciable saving of time and effort, it does bear with it certain disadvantages. For the student, there is the lengthening of the period during which he has no graduate degree (and the increased risk that he will never have one). For the

TABLE III
Graduate Degrees Awarded 1964-65 to 1967-68

	1964-65	1965-66	1966-67	1967-68
PH.D.	105	143	146	162
PHIL.M.	1	5	14	17
M.A.	317	385	379	413
M.SC.		32	183	165
M.B.A.	32	55	50	65
LL.M.	1		4	2
M.S.	1		1	
M.A.SC.	90	99	98	116
M.ENG.				9
D.CL.SC.		1	1	
M.ARCH.	5	6	11	12
M.SC.(PL.)	1	5	16	9
M.SC.F.	4	3	7	2
M.S.A.*	37			
M.SC.D.	3	5	3	7
M.V.SC.*	2			
D.V.SC.*		1		
MUS.M.			2	5
MUS.DOC.		1	1	
M.S.W.	68	51	80	84
D.S.W.	1			3
M.L.S.	5	2	12	8
M.ED.	132	165	180	226
ED.D.	9	1	8	9
M.SC.PHM.	5	4	5	11
TOTAL:	819	964	1,201	1,325
Dip. R.E.E.S.		1	1	3

*No longer in School of Graduate Studies.

department and the University, there is the danger that the M.Sc. will come to be regarded as a degree conferred upon those students whose competence is not sufficiently established after the first year to warrant changing their enrolment to the Ph.D. If such a suspicion develops, it will be extremely difficult to prevent it from becoming self-fulfilling.

The second reason for the decline is the tendency in some departments towards lengthening the period necessary to complete M.Sc. theses. In addition to the initial decline caused thereby, there will be a continuing reduction because space limitations will prevent a levelling out with time. This tendency is also a cause for some concern.

A third factor which explains the current M.Sc. figures is the curtailment by some departments of the M.Sc. intake in order to increase the ratio of Ph.D.'s to M.Sc.'s.

Each of the three factors involved - conversion to advanced standing in the Ph.D. programme, lengthening of the period necessary to complete the M.Sc. thesis, and planned cutback of M.Sc. enrolment - have had about equal weight in their effect upon the 1968-69 M.Sc. graduations. It is important to note that these factors were concentrated in a relatively small number of departments in Divisions III and IV. In the majority of departments the number of M.Sc.'s awarded was closely related to increased enrolment.

Last year's report called attention to the failure of the number of Ph.D.'s awarded to keep pace with the increased enrolment. This year, there is some resumption of the upward trend (10.9 per cent), but not enough to reflect fully the increases in Ph.D. enrolment of four or five years earlier. It is very easy, particularly in the humanities and social sciences, for the design and execution of the research and the composition of the thesis to be unreasonably protracted, and all experience indicates that after a certain point the longer work on the thesis goes on, the less

TABLE IV
Current and Projected Enrollment by Level of Candidacy

	1966-67		Estimated ¹ Enrollment 1967-68		Actual Enrollment 1967-68		1968-69		Estimated		1970-71		1975-76	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
	<i>Division I</i>													
Doctoral	395	62	445	50	527	51	518	55	624	55	764	55	764	55
Master's (incl. special students)	498	154	645	125	570	156	702	145	846	145	1036	145	1036	145
<i>Division II²</i>														
Doctoral	168	20	165	50	253	25	250	50	270	50	298	50	298	50
Master's (incl. special students)	538	614	560	680	708	756	800	780	865	780	952	780	952	780
<i>Division III</i>														
Doctoral	406	18	480	15	476	15	524	19	624	19	791	19	791	19
Master's (incl. special students)	480	118	590	75	551	119	636	111	756	111	959	111	959	111
<i>Division IV</i>														
Doctoral	182	5	200	5	225	6	248	7	296	7	383	7	383	7
Master's (incl. special students)	258	22	275	35	254	31	322	33	384	33	497	33	497	33

¹As given in last year's report.

²Including Educational Theory and Library Science.

likely it is to be brought to successful completion. It is imperative that all graduate chairmen be vigilant to guard against the appalling human and material waste involved in uncompleted theses.

Table iv shows the current and projected enrolment by level of degree candidacy. The P.H.D. enrolment has been predicted on the basis of the average over the past four years (39 per cent). This is probably conservative, since, except for one year which does not fit the curve, there has been a definite upward trend (from 33.8 per cent in 1963-64 to 40.4 per cent in 1967-68). If the trend is maintained for another year, it may be considered as established and an extrapolated figure may be substituted for an averaged figure.

Table v shows a continuing slow rise in the number of students taking formal courses or engaged in research and independent study during the summer.

TABLE V
Students Enrolled in Summer Session 1966, 1967, 1968

	1966	1967	1968
Formal courses (not including Educational Theory)	435	341*	397
Educational Theory	661	844	750
Research and independent study	1,275	1,400	1,609
TOTAL	2,371	2,585	2,756

*Decrease due to exclusion of Type A certificate course registrants, of whom there were 130 (now registered in Extension).

Graduate student support is shown in Tables vi, vii, viii and ix. The increase over last year in the total amount of support available as shown in Table ix was \$1,819,000, or 24.14 per cent. The largest component of this increase is the increased number and value of scholarships, fellowships and bursaries given by the National Research Council, the Canada Council and the Medical Research Council: up from \$1,537,000 to \$2,484,000, or 61.6 per cent. Part of the increase in research assistantships is also attributable to these sources. In 1967-68, 381 of a total of 2,151 NRC awards, or 17.7 per cent, were held in this University; for 1968-69, there are to be 363 awards out of a total of 2,167, or 16.7 per cent; to this should be added the MRC awards, now administered separately: 54, which would make a comparison total of 417. In 1967-68, 130 Canada Council awards were held in this University - out of 329 held within Canada (949 all told) - so that 13.7 per cent of all awards, or 39.5 per cent of those held within Canada, were held here. For 1968-69, 226 Canada Council awards are to be held here, out of a total of 624 to be held within Canada (1,555 all told), so that 14.6 per cent of all awards and 36 per cent of those held in Canada will be at this University (but see footnote, Table ix).

The value of the Ontario Graduate Fellowships held here has increased from \$1,640,000 in 1967-68 (inclusive of the summer of 1967), to \$1,730,000 in 1968-69 (inclusive of the summer of 1968), or 5.2 per cent. Last year's Report noted that, as a proportion of the total support available, the Ontario Graduate Fellowships had declined from 37 per cent to 28 per cent; this year there is a further decline to 18.5 per cent. Again, the chief factor is the increase in federal support, but another factor is the continuing deterioration in the attractiveness of the OGF's. The programme is now entering its sixth year and there has still been no adjustment of stipend, whereas all the major federal agencies have recognized the need to raise their levels of support to meet rising costs. It is therefore not surprising that an increasing number of those who apply for OGF's do so only as insurance, subsequently resigning them in favour of larger awards. The resultant increase in the attrition rate was partly offset by a larger allowance for this purpose (up from 10 per cent to 35 per cent); nevertheless,

TABLE VI
School of Graduate Studies Awards

	Tenable in the Session				
	1964-1965	1965-1966	1966-1967	1967-1968	1968-1969
Total Value plus fees	\$133,230 12,149	\$272,225 3,785	\$357,375 2,520	\$463,052 1,275	\$481,390 857
TOTAL	\$145,379	\$276,010	\$359,895	\$464,327	\$482,247
Number of Awards	82	137	175	258	286
<i>Division I</i>					
Value of Awards plus fees	\$ 38,880 7,364	\$111,175 1,360	\$150,425 1,240	\$157,750 435	\$125,940
TOTAL	\$ 46,244	\$112,535	\$151,665	\$158,185	\$125,940
Average Value	\$ 1,779	\$ 1,815	\$ 1,944	\$ 1,738 91	\$ 1,431 88
Number of Awards	26	62	78		
<i>Division II</i>					
Value of Awards	\$ 62,100			\$ 62,100	\$ 99,450
Average Value	\$ 62,100			\$ 62,100	\$ 99,450
Number of Awards	\$ 1,515 41			\$ 1,515 41	\$ 1,441 69
<i>Division III</i>					
Value of Awards plus fees	\$161,050 2,425	\$206,950 1,280	\$208,230	\$189,802 840	\$192,050 857
TOTAL	\$163,475	\$163,475	\$208,230	\$190,642	\$192,907
Average Value	\$ 2,180	\$ 2,180	\$ 2,147	\$ 2,007 95	\$ 2,192 88
Number of Awards	75	75	97		
<i>Division IV</i>					
Value of Awards	\$ 53,400			\$ 53,400	\$ 63,950
Average Value	\$ 53,400			\$ 53,400	\$ 63,950
Number of Awards	\$ 1,723 31			\$ 1,723 31	\$ 1,560 41

TABLE VII
Ontario Graduate Fellowships

	Session 1965-1966	Summer Supplement 1966		Session 1966-1967	Summer Supplement		Session 1967-1968
		Post 65-66	Pre 66-67		Post 66-67	Pre 67-68	
Total number	700	410	187	753	386	268	905
Total value	\$984,280	\$205,000	\$93,500	\$1,092,508	\$192,450	\$134,000	\$1,318,001.50
<i>Division I</i>							
Number	527	294	131	590	219	125	515
Value	\$733,280	\$147,000	\$65,500	\$855,008	\$109,250	\$62,500	\$744,688.00
<i>Division II</i>							
Number	173	116	56	163	51	40	171
Value	\$251,000	\$58,000	\$28,000	\$237,500	\$25,200	\$20,000	\$249,259.00
<i>Division III</i>							
Number					75	49	118
Value					\$37,500	\$24,500	\$174,648.50
<i>Division IV</i>					41	54	101
Number					\$20,500	\$27,000	\$149,416.00
Value (Includes Psychology)					\$47,500		

TABLE VIII
Research Grant Support for Graduate
Students 1967-68

<i>Division I</i>	\$ 1,550
<i>Division II</i>	84,663
<i>Division III</i>	687,728
<i>Division IV</i>	360,068
TOTAL	\$1,134,009

we will have only 935 ocr's in the coming year, 198 (or 16.6 per cent) below our quota, after a turnover of 657 cancellations and 78 substitutions.

Both federal and provincial fellowships now require that the holder be a Canadian citizen or landed immigrant. This has meant that the substantial number of graduate students here on student visas must depend upon teaching or research assistantships, School of Graduate Studies fellowships and such external fellowship schemes as are exempt from the new requirements. Fortunately, the amount available for assistantships has increased substantially (from \$3,400,000 to \$4,300,000), but there has been virtually no increase in sgs fellowships (from \$464,000 to \$482,000), and there was an actual decrease in Commonwealth, Colombo and industrial fellowships (from \$427,000 to \$367,000). Since the major allocations from the sources which remain within the University's discretion must continue to go predominantly to Canadian students, the substantial increase in assistantships and the very slight increase in the School of Graduate Studies fellowships can only partially alleviate the sudden worsening of the condition of foreign graduate students.

Table x shows the continuing, albeit reduced, growth in the Visiting Lecturer Fund. The significance of the contribution these visitors make to the academic advancement of the students and staff of this University is implicit in the list of lectures appended to this Report.

The use of external appraisers and examiners for final PH.D. examinations continued to increase in 1967-68, although at a reduced pace (Table XI).

During the year, the Institute for Applied Statistics and the Centre for Research in the Social and Health Services were established, the former in Division III and the latter in Division II; neither anticipates offering a degree programme. The new Institute of Medical Science, established late the year before, successfully submitted an academic programme to the Appraisals Committee of the Ontario Council on Graduate Studies and will in the coming year institute its M.Sc. and PH.D. programmes. The Institute for the History and Philosophy of Science and Technology, which had secured first Senate reading in 1966-67, received second reading and Board approval during 1967-68, and has prepared a submission to the Appraisals Committee.

Successful appraisal was also undergone by the Graduate Department of Business Administration, which has now been authorized to develop a PH.D. programme.

Last year's report mentioned, in addition to the appraisal of the adequacy of the proposed new graduate degree programme, two other proposals of the Ontario Council on Graduate Studies: some division of responsibility for specific fields of graduate work and research among the universities of Ontario, and the development of a provincial system of university research libraries in which institutional acquisition policies would pursue this division of responsibility. The appraisal system seems to have settled down to quite a smooth operation; the library system has developed a number of important co-operative aspects, but of course its main character must await the division among the universities of fields of academic responsibility. This last has been, as everyone knew it must be, the sticking point. On May 11, however, a meeting took place in Toronto under the auspices of the Committee of Presidents

TABLE IX
Graduate Student Support at the University of Toronto

Source	Estimated for 1968-69					Total
	1967-68 Total	Division I	Division II	Division III	Division IV	
School of Graduate Studies Fellowships	\$ 464,327	\$ 125,940	\$ 99,450	\$ 192,907	\$ 63,950	\$ 482,247
Ontario Graduate Fellowships						
Academic Session	1,317,672	723,786	287,702	227,500	139,000	1,377,988
Post Supplement	192,450	121,355	38,500	35,500	28,500	223,855
Pre Supplement	133,500	50,375	20,000	36,000	21,000	127,375
National Research Council Awards	1,126,000		18,000	1,115,455	192,945	1,326,400
Canada Council Fellowships (including Cultural Exchange Fellowships)*	411,630	744,480	189,260	2,160	218,400	935,900
Medical Research Council Awards				3,600		222,000
Commonwealth, Colombo, Industrial, etc.	427,157	61,404	185,589	98,265	22,320	367,578
Teaching Assistantships (Estimated)	1,571,331	364,075	263,653	842,388	395,541	1,865,657
Research Assistantships (Estimated)	1,836,030	25,450	973,900	881,575	574,850	2,455,775
Postdoctoral Fellows (SGS funds only)	7,480,097	2,216,865	2,076,054	3,435,350	1,656,506	9,284,775
	55,000		15,310	42,880	11,810	70,000
	\$7,535,097	\$2,216,865	\$2,091,364	\$3,478,230	\$1,668,316	\$9,354,775

*The number of awards and the total amount of support from Canada Council always show decline after fall registration data are compiled.

TABLE X
Visiting Lecturers July 1 to June 30

	1966-1967	1967-68	Total 1962-63 to 1967-68
Total Value	\$55,383.25	\$64,570.40	\$211,490.19
Total Number	302	345	1175
<i>Division I</i>			
Value	\$15,257.53	\$17,045.00	\$60,661.99
Number	79	80	312
<i>Division II</i>			
Value	\$5,706.81	\$9,951.84	\$27,114.89
Number	35	47	144
<i>Division III</i>			
Value	\$22,705.00	\$25,341.56	\$82,289.84
Number	129	152	499
<i>Division IV</i>			
Value	\$11,713.91	\$12,232.00	\$41,423.47
Number	59	66	220

of Universities of Ontario, whose objective was to get the academic disciplines themselves seized of the problem on a provincial basis. Some 500 chairmen of departments, chief librarians, deans, and presidents came together and spent the morning in a general discussion of the problem, separating during the afternoon into discipline groups, which organized themselves into working provincial bodies. Over the months that followed, these groups began the work of making inventories of the state of their respective disciplines in the province, of existing and planned graduate work by institutions, of unnecessary duplications, unexploited opportunities that could be pursued, and possibilities for co-operation. How far this initiative will move us forward along the difficult path towards voluntary division of fields of responsibility will not become clear for some months yet.

So far as capital development is concerned, the year 1967-68 saw only limited advances. The renovation of the St. George Apartments for unmarried graduate students was carried a step further, and a larger number of students is now accommodated there. Progress on the high-rise units for married students on Charles Street between Yonge and Bay was not fast enough to permit any students to move in at the beginning of the 1968-69 academic year, but some units will be available in November. The only progress that has been made towards the construction of a Graduate Complex on St. George Street is the further acquisition of land. This project is now most urgent, the shortage in residential, academic, and administrative space having become more acute each year.

On the other hand, the delays and uncertainties that have beset the development of the proposed Humanities and Social Sciences Research Library, so important to the future of the School of Graduate Studies, now appear at last to have been overcome. At the end of the period under review, the Department of University Affairs asked the universities of Ontario to clarify their commitment to the idea of a system of Ontario university research libraries, and to describe their understanding of the place in that system of the proposed University of Toronto Library. This was a nervous moment, but the test showed that the thinking and planning in the Committee of Presidents of Universities of Ontario, the Ontario Council on Graduate Studies, the Ontario Council of University Librarians, and the Advisory Joint Council of the OCGS/OCUL held up under pressure - to the satisfaction, but perhaps also to the surprise, of DUA and CUA. We therefore received final clearance in principle for our Library, and, although there were some hurdles having to do with cost still to be cleared, it is now at the time of writing known that these have been overcome.

TABLE XI
Ph.D. Appraisers and Examiners

	1966-1967		1967-1968		Sub-Total 1964-65 to 1967-68		Total (Appraisers and Examiners)
	Appraisers	Examiners	Appraisers	Examiners	Appraisers	Examiners	
	Total Value Total Number	\$1,200.00 23	\$6,854.80 44	\$1,550.00 31	\$6,705.44 46	\$3,700.87 73		$19,317.77 126	$23,018.64 199
<i>Division I</i> Value Number	\$150.00 2	\$1,275.00 8	\$100.00 2	\$2,065.44 13	\$400.00 7	\$4,434.44 29	\$4,834.44 36
<i>Division II</i> Value Number		\$300.00 2	\$100.00 2	\$715.00 5	\$100.00 2	\$1,315.00 9	\$1,415.00 11
<i>Division III</i> Value Number	\$850.00 17	\$4,264.80 26	\$950.00 19	\$3,475.00 25	\$2,400.87 48	\$10,858.38 70	\$13,259.25 118
<i>Division IV</i> Value Number	\$200.00 4	\$1,015.00 8	\$400.00 8	\$450.00 3	\$800.00 16	\$2,709.95 18	\$3,509.95 34

Barring unforeseen difficulties, the Library will come into service in the spring of 1972.

At the end of the session under review, Professor J. G. Breckenridge completed his invaluable services to the administration of the School after six years as Associate Dean of the old Division II and an additional year as Associate Dean of the new Division III. His great experience of the School, combined with his readiness to give new ideas their opportunity, was an important factor in the transition from the old to the new structure, and the School is equally grateful to him for his recent and earlier services. He is succeeded as Associate Dean of Division III by Professor J. N. P. Hume (Physics and Computer Science). The table of organization has been enlarged by the establishment of a new post, Assistant to the Dean; Professor Milton Israel (History) accepted this appointment in November 1967, and has since been deeply involved in the work of the Dean's office. I am grateful to the decanal echelon, the Chairmen and Directors of graduate departments, centres, and institutes, and the Secretary and the staff of the School for a year of what has seemed unremitting labour.

ERNEST SIRLUCK

LECTURES SPONSORED BY THE SCHOOL OF GRADUATE STUDIES 1967-1968

DIVISION I

Department of Classical Studies

- Professor A. Andrewes, University of Oxford. "Solon and the Hektemoroi."
 Professor E. Badian, University of Leeds. "The *Publicani* in the Late Republic."
 Professor M. H. Jameson, University of Pennsylvania. "The Rite of Sacrifice in Greek Art."
 Mr. E. J. Kenney, Fellow of Peterhouse College, Cambridge University. "On Understanding Lucretius."
 Professor D. E. W. Wormell, Trinity College, Dublin. "Virgil's Place in the Pastoral Tradition."

Centre for the Study of the Drama

- Mr. Peter Raby, Stratford Theatre. "Choosing a Repertory."
 Mr. Francis Warner, Fellow of St. Peter's College, University of Oxford. "Samuel Beckett."

Department of East Asian Studies

- Professor A. L. Basham, Australian National University. "The Secular Tradition in Ancient India"; "Arthasastra."
 Professor Florence Chia-Ying Chao, National Taiwan University. "Elements of Form in Chinese Poetry"; "A Modern View of Wu Wen-ying's tz'ü."
 Professor C. R. Jones, University of Rochester. "The Architecture of the Temple Theatres for Sanskrit Drama in Kerala."
 Professor Stella Kramrisch, University of Pennsylvania. "Ritual Art in Tribe and Village in India."
 Professor Richard N. McKinnon, University of Washington. "Kyōgen (comic interludes) and Noh"; "The Dimension of a Comedy."
 Professor E. G. Pulleyblank, University of British Columbia. "The Vowel Systems of Vietnamese and Mandarin Chinese."

Department of English

- Professor John C. Bryce, University of Glasgow. "Hamlet and Eliot."
 Professor William Earle, Northwestern University. "The Critical Problems of the Modern Film."
 Professor E. D. H. Johnson, Princeton University. "The Artistry of Dickens' Opening Scenes"; "In Memoriam."
 Professor John Logan, State University of New York at Buffalo. Poetry Reading. Discussion.
 Professor Alec Lucas, McGill University. "The Periodicals of the 1840's."
 Professor A. H. Scouten, University of Pennsylvania. "The Assumptions behind Histories of the Elizabethan Stage."
 Mr. George Watson, Fellow of St. John's College, Cambridge University. "Social Class in the English Novel."

Departments of English and the History of Art

Professor Quentin Bell, University of Sussex. "John Ruskin: His Significance as a Critic."

Department of French Language and Literature

Dr. Theodore Besterman, Institut et musée Voltaire, Geneva. "Shakespeare and Voltaire, Two Cultures in Conflict"; "Voltaire's God."

Professor Haskell Block, Brooklyn College. "The Fictive and the Real in Zola's *l'Assommoir*."

Professor Bernard Bray, University of Utrecht. "*Le matin* de Théophile de Viau."

Professor Georges-P. Collet, McGill University. "André Gide et Notre Temps."

Professor C. A. Hackett, University of Southampton. "Psychology and the New Criticism in France."

Professor Daniel Poirion, Université de Grenoble. "Villon et Charles d'Orléans."

Professor Jacques Roger, Université d'Orléans-Tours. "Les Monstres dans la pensée française du seizième siècle."

Dr. S. S. B. Taylor, University of Saint Andrews. "Voltaire, Rousseau, and the Artist: The Enlightenment in Art."

Professor M. Maurice Zermatten, Ecole polytechnique fédérale de Zurich. "La Baroque dans la littérature européenne."

Department of French Language and Literature and the Centre for Medieval Studies

Professor Alfred Ewart, University of Oxford. "The Linguistic Consequences of the Norman Conquest."

Department of Germanic Languages and Literature

Professor Wolfgang Fleischhauer, Ohio State University. "A Surviving German-speaking Community in Ohio"; "Wortgeschichtliche Probleme aus der Frühzeit der deutschen Sprache."

Professor L. W. Forster, Cambridge University. "Literary History as an Academic Discipline."

Professor Henry H. Remak, University of Indiana. "Trends of Recent Research on West European Romanticism."

Professor Leroy R. Shaw, University of Wisconsin. "Wedekind's *Frühlings Erwachen*."

Professor K. H. Weinert, University of Tübingen. "Goethe und Schiller in Weimar."

Department of History

Professor Lewis Hanke, University of California, Irvine. "The Historical Literature of the Spanish Conquest of America"; "The Perils and Possibilities of an Academic Program in Latin American Studies."

Professor Allen Matusow, Rice University. "The Kennedy Administration."

Mr. Alexander Woodside, Harvard University. "Historical Forces behind the Relationship between China and North Vietnam."

Professor Perez Zagorin, University of Rochester. "The English Revolution in the Seventeenth Century."

Department of History of Art

Dr. Erich Schleier, University of Berlin. "The New Role of Salvator Rosa."

Dr. Jale Inan, Istanbul University. "Roman Copies of Greek Sculpture from Side in Pamphylia."

Dr. C. Nordenfalk, National Museum, Stockholm. "The Birth of the Initial."

Institute for the History and Philosophy of Science and Technology

Dr. Alex Keller, Leicester University. "The Technological Application of Scientific Theory in the Renaissance."

Department of Islamic Studies

Dr. E. I. J. Rosenthal, Cambridge University. "Two Approaches to Political Science in Islam: Averroes (Ibn Rushd) and Ibn Khaldūn."

Department of Italian and Hispanic Languages and Literatures

Professor Aldo S. Bernardo, State University of New York at Binghamton. "Petrarch's Laura: The Convolutions of a Humanistic Mind."

Professor Germán Bleiberg, Vassar College. "'Paisaje Habitado': Vocación Dramática de Lorca"; "Experiencia y Creación en la Novela Picaresca de Mateo Alemán."

Professor Elio Gianturco, Hunter College. "Giambattista Vico."

Professor Ruth Lee Kennedy, University of Arizona. "Spanish Costume of the Golden Age as a Chronological Norm for Literature"; "*La Estrella de Sevilla* Restudied."

Professor Paul Oskar Kristellar, Columbia University. "Manuscript Research on Renaissance Humanism."

Manuel Zapata Olivella, "Letras Nacionales," Bogotá. "Problemas de la Novelística Colombiano Contemporánea"; "Mentalidad del Mestizo Colombiano."

Professor F. W. Pierce, University of Sheffield. "The Spanish Renaissance Epic"; "Cervantes' Short Novels, with Particular Attention to *El celoso extremeño*."

Professor R. D. F. Pring-Mill, University of Oxford. "The *Conceptista* Aesthetic."
 Professor Olga Ragusa, Columbia University. "Pirandello and Verga."

Departments of Italian and Hispanic Languages and Literatures and History

Professor Albert A. Sicoff, City University of New York. "The Spanish Obsession with 'Purity of Blood'"; "Judaico-Christians in the Jeronymite Monastery of Guadalupe."

Centre for Linguistic Studies

Professor H. A. Gleason, Jr., Hartford Seminary Foundation. "Linguistics in the School English Program."
 Professor William J. Samarin, Hartford Seminary Foundation. "Contact Languages in African History"; "Glassolalia."

Centre for Medieval Studies

Professor Larry D. Benson, Harvard University. "Malory's *Book of Sir Tristram de Lyones*"; "The Audience of Old English Poetry."
 Professor John Benton, California Institute of Technology. "The *Autobiography* of Guibert de Nogent."
 Professor Alan Cameron, University of London. "Poetry and Propaganda at the Court of Honorius"; "The New Monument of a Charioteer called Porphyrius found in Constantinople."
 Professor Urban T. Holmes, University of North Carolina. "Medieval Houses in the Twelfth and Thirteenth Centuries"; "Medieval Houses - Town, Manor and Palatial."

Centre for Medieval Studies and Institute for the History and Philosophy of Science and Technology

Professor Marshall Clagett, Princeton University. "Euclid in the Middle Ages."

Department of Music

Professor Andrew Hughes, University of North Carolina. "Adam de la Bassée and the *AntiClaudianus* tradition."
 Professor Joseph Kerman, University of California at Berkeley. "The Beethoven Sketches."
 Professor Roland Kidd, Purdue University. "The Accompanied Piano Sonata."
 Professor David P. McAllester, Wesleyan University. "Ethnomusicology: the Meeting of Anthropology and Music."
 Professor Leo Treitler, Brandeis University. "Thoughts on the Conceptual Basis of Historical Studies in the Arts."

Department of Near Eastern Studies

Dr. Burkhart Keinast, University of Erlangen. "The Legal Situation in Anatolia in the Early Second Millennium B.C. as Evidenced by the Old Assyrian Deeds of Sale."
 Professor Harry M. Orlinsky, Jewish Institute of Religion, New York. "The Current (Fourth) Great Age of Bible Translation: Catholic, Jewish, Protestant"; "Isaiah 1:1 - 2:4 - A Contextual Study."
 Professor Marvin H. Pope, Yale University. "Gory Goddesses: Some Parallels between 'Anat and Kali'; "Uses and Misuses of Ugaritic in Old Testament Studies."
 Professor Isadore Twersky, Harvard University. "Maimonides as Jurist."

Department of Philosophy

Professor Bruce Aune, University of Massachusetts. "New Light on the Analytic-Synthetic."
 Professor Donald Davidson, Princeton University. "The Individuation of Events."
 Professor Richard Rorty, Princeton University. "Private Objects and Immediate Knowledge."
 Professor Gilbert Ryle, University of Oxford. "Some Problems about Thinking."
 Professor Wilfred Sellars, University of Pittsburgh. "Metaphysics and the Concept of a Person."
 Professor P. F. Strawson, University of Oxford. "Predicates."
 Professor David Wiggins, University of London. "Knowledge and the Transparency of Consciousness."

Department of Slavic Languages and Literatures

Professor Robert Auty, University of Oxford. "The Medieval Czech Love Lyric"; "The Formation of the Slavic Literary Languages."
 Professor Michael H. Futrell, University of British Columbia. "Justice for Pilnyak!"; "Japanese Money and the Russian Revolution 1904-1905."

DIVISION II

Department of Anthropology

Professor Cyril S. Belshaw, University of British Columbia. "The Conditions of Social Performance: Criteria for Theory."

Dr. James B. Griffin, Museum of Anthropology, Ann Arbor, Michigan. "Prehistoric Man in the Ancient Great Lakes Area."

Department of Business Administration

Professor Gordon Donaldson, Harvard University. "The Management of Corporate Funds Flows: Value Maximization versus Financial Mobility."

Professor J. B. Kernan, University of Cincinnati. "Multivariate Taxonomies in Consumer Research."

Dr. Edward E. Lawler, Yale University. "Managerial Compensation."

Professor George P. Shultz, University of Chicago. "Jobs and the Ghetto."

Professor Daniel Teichroew, Case Western Reserve University. "Information Systems Design."

Department of Geography

Dr. Baruch Boxer, Michigan State University. "Approaches to the Study of Urbanization in Hong Kong's New Territories"; "Feng-shui and the Analysis of Landscape Change: the Case of Tsuen Wan."

Dr. John B. Jackson, *Landscape Magazine*, Santa Fe, New Mexico. "The Public Landscape and the Landscape Architect"; "From Monument to Environment."

Dr. David Lowenthal, Harvard University. "Approaches to Environmental Perception."

Professor Phillip W. Porter, University of Minnesota. "Is Environmental Perception a Dead End?"

Dr. P. L. Wagner, Simon Fraser University. "The Berkeley School."

Professor Julian Wolpert, University of Pennsylvania. "The Unusual Environment."

Professor Wilbur Zelinsky, Pennsylvania State University. "The Geography of Population Change in Central America and the West Indies"; "American Culture: Problems in Identifying National and Regional Geographical Manifestations."

Department of Law

Professor Graham Hughes, New York University. "Civil Disobedience and the Courts."

Department of Political Economy

Professor Noel Butlin, Yale University. "Economic History and Development."

Professor Carl Christ, Johns Hopkins University. "Monetary and Fiscal Policy and the Government Budget Restraint."

Professor W. H. B. Court, University of Birmingham. "An Aspect of Nineteenth Century British Industrialization."

Professor Paul Deprez, University of Manitoba. "Some Aspects of Recent Research in Historical Demography."

Professor P. J. Dhrymes, University of Pennsylvania. "Estimation of Rational Distributed Lags."

Professor Robert Dorfman, Harvard University. "An Application of Maximization in Economics: An Introductory Exposition."

Professor Suraj B. Gupta, The University of Western Ontario. "A Theory of the Growing Economy."

Professor L. Hurwicz, University of Minnesota. "Welfare Economics and Economic Organization."

Mr. Nurul Islam, Institute of Development Economics, Karachi, Pakistan. "The Role of Economic Research in Development Planning: The Case of Pakistan."

Professor Janos Kornai, Hungarian Academy of Sciences. "Multi-level Planning Model and Experience in Hungary."

Professor Robert Mundell, University of Chicago. "The Theory and Politics of the Gold Problem."

Professor John H. A. Munro, University of British Columbia. "Medieval Monetary Policies."

Professor V. G. Onushkin, Leningrad State University. "Problems of Economic Planning in the USSR: The Current Plan."

Professor Jacques Parizeau, Université de Montréal. "The Areas of Responsibility of Provincial Governments in a Decentralized Federal System."

Professor E. S. Phelps, University of Pennsylvania. "The Phillips Curve: Wage Money Relationships."

Professor K. N. Raj, Delhi School of Economics. "The Economics of Investment in Live-stock in Agrarian Economics."

Professor B. H. Slicher Van Bath, Agricultural University of Wageningen, Holland. "Eighteenth Century Agriculture: Evolution or Revolution? Agriculture on the Continent of Europe"; "Population Changes and Economic Development in the Netherlands."

Professor David Smyth, State University of New York at Buffalo. "The Accelerator: Ex-Ante or Ex-Post?"

Professor F. R. von der Mehden, University of Wisconsin. "Development and Insurgency in Northeast Thailand."

Centre for Russian and East European Studies

- Professor James H. Billington, Princeton University. "Intellectuals in Soviet Society."
 Professor Ghita Ionescu, London School of Economics and Political Science. "Status Quo in Europe?"
 Dr. Jiri Stepanovsky, Czechoslovak Institute of International Politics and Economics. "Developments in Czechoslovakia."

Department of Social Work

- Dr. Robert Chin, Boston University. "Exploring Theoretical Models for Planned Social Change."
 Dr. William Gordon, Washington University. "Knowledge Building for Practice."

Department of Sociology

- Professor Howard S. Becker, Northwestern University. "History, Culture and Subjective Experience: Drug-induced Experiences"; "Some Thoughts on Sociological Method."
 Professor Raymond Breton, Johns Hopkins University. "Career Decisions of Canadian High School Students"; "Formal Political Structure and Representation of the Interests of Social Groups."
 Professor Pierre de Bie, Université de Louvain. "Family Research in Europe and America."
 Professor Harold Garfinkel, University of California at Los Angeles. "The Rational Accountability of Everyday Activities as a Practical Accomplishment"; "Practical Organizational Reasoning."
 Professor Everett Hughes, Brandeis University. "Multi-Ethnic Societies in the Post-industrial Era"; "Sociological Work on the Professions."
 Professor Rainer Lepsius, University of Mannheim. "National Identity in Post-war Western Germany"; "The Role of Intermediary Groups and other Powers in Political Stability."
 Professor Benjamin Nelson, New School for Social Research, New York. "The Cultures of Conscience and the Revolutions of Rationales in Early Modern and Contemporary Society"; "Max Weber's Protestant Ethic 1904-1967."

DIVISION III

Institute for Aerospace Studies

- Professor J. A. Hynek, Northwestern University. "UFO's."
 Mr. S. S. Manson, National Aeronautic Space Administration. "NASA's Involvement in Material Science."
 Dr. J. B. McInnis, Ocean Systems, New York. "Hydrospace."
 Professor G. Melvill-Jones, McGill University. "Man: the Ingenious Machine."
 Professor W. Preister, University of Bonn. "Upper Atmosphere."
 Professor D. Wilkinson, Princeton University. "The Primeval Fireball: A New Tool in Cosmology."

Department of Astronomy

- Professor Norman H. Baker, Columbia University. "Properties of Horizontal Branch Stars as Inferred from the Pulsation Characteristics of RR Lyrae Stars."
 Professor G. A. Bakos, University of Waterloo. "Statistical Studies of Visual Binaries."
 Professor S. Chandrasekhar, University of Chicago. "Gravitational Collapse."
 Professor Pierre Demarque, University of Chicago. "Helium Flashes in Stars."
 Dr. Robert F. Garrison, California Institute of Technology. "Some Results of Spectral Classification in Nearby Associations."
 Dr. Lloyd Higgs, National Research Council. "The Algonquin Radio Observatory Acquisition System"; "Radio Emission from Planetary Nebulae."
 Professor Icko Iben, Massachusetts Institute of Technology. "The Age and Initial Helium Abundance of the Oldest Stars."
 Dr. K. A. Innanen, York University. "On the Illumination of High-latitude Reflection Nebulae by the Integrated Light of the Galaxy."
 Dr. G. C. McVittie, University of Illinois Observatory. "Theories of a Variable 'Constant' of Gravitation."
 Professor J. B. Oke, California Institute of Technology. "Quasi-stellar Sources."

Department of Chemical Engineering

- Professor D. W. Bacon, Queen's University. "Strategies of Experimentation."
 Dr. G. H. Beall, Corning Glass Works. "The Controlled Crystallization of Glass."
 Dr. W. M. Campbell, Ontario Research Foundation. "Industrial Contract Research."
 Dr. I. D. Doig, University of New South Wales. "Determination of the Individual Drag Coefficients of the Continuous and Dispersed Phases where Large Spheres are Suspended by a Bounded Solid-gas Stream."
 Dr. D. C. Downing, Shawinigan Chemicals Limited. "Problem Areas in Applied Chemical Engineering."
 Dr. John M. Harkin, United States Department of Agriculture Forest Service. "The Elucidation of the Structure of Lignin."
 Dr. D. L. Hetrick, University of Arizona. "Nuclear Reactor Dynamics and Nuclear Safety."

- Dr. B. R. Jennings, University of London. "Structural Information from the Light scattered by Macromolecular Solutions in an Electric Field."
Dr. J. W. Mullin, University College, London. "Crystals and Crystallization."
Dr. W. F. Petryschuk, Polymer Corporation. "Modern Distillation Column Calculations."
Professor R. S. Porter, University of Massachusetts. "Energy Induced Charges in Polymer Molecular Weight Distribution."
Professor L. W. Shendelman, Yale University. "Statistical Thermodynamics Applied to Rarefied Gases."
Dr. E. A. D. White, Imperial College, London. "Crystals and Materials Research"; "The Growth and Perfection of Crystals."

Department of Chemistry

- Dr. Peter Borrell, Keele University. "Shock Studies of Vibrational Relaxation." Professor Herbert C. Brown, Purdue University. "The Nonclassical Ion Problem."
Dr. James N. Butler, Tyco Laboratories, Inc. "Electrode Reactions in Aprotic Solvents."
Professor Vaclav Chvalovsky, Institute of Chemical Process Fundamentals, Prague. "Structure and Medium Influence and Solvolysis of Organosilicon Hydrides."
Professor H. M. Frey, Reading University, England. "Some Thermal Unimolecular Isomerizations Involving Six-membered Ring Transition Complexes."
Professor David Ginsberg, Israel Institute of Technology, Haifa. "Propellanes."
Dr. D. M. Gruen, Argonne National Laboratory. "Electronic Structures of 3d and 4f Element Di and Trihalide Molecules."
Professor J. Halpern, University of Chicago. "Reactions of Coordinately Unsaturated Complexes."
Professor R. K. Hill, Princeton University. "Asymmetric Induction in Molecular Rearrangements."
Professor Harry King, State University of New York at Buffalo. "Self Consistent Field Potential Energy Surfaces for Simple Proton Transfer Reactions."
Professor J. A. Marshall, Northwestern University. "The Synthesis of Medium Ring Dienes."
Professor T. W. Martin, Vanderbilt University. "Recent Studies of the NO₃ Free Radical."
Professor R. Mason, University of Sheffield. "Recent Structural Studies of Metal to Carbon Bonds."
Professor F. W. McLafferty, Purdue University. "Recent Advances in Molecular Mass Spectrometry."
Mr. S. Meyerson, American Oil Company. "Chemical Origins of Mass Spectra."
Professor J. W. Moskowitz, New York University. "Electronic Structure of Transition Metal Fluorides."
Professor George A. Olah, Case Western Reserve University. "New Vistas of Chemistry in the Superacidity Range."
Professor K. T. Potts, Rensselaer Polytechnic Institute. "Some New Polyazaheterocycles."
Dr. George Proctor, University of Strathclyde, Scotland. "The Azatropone Problem."
Dr. Wolfgang Roth, University of Cologne. "Stereochemistry of the Thermal Decomposition of Bicyclic Diazo Compounds."
Professor J. B. Strothers, University of Western Ontario. "Conformational Analysis using ¹³C NMR."
Professor G. H. Stout, University of Washington. "Some Phenylpropanoids from Calophyllum Species."
Professor S. Walker, Lakehead University. "Dielectric Studies of Some Inter- and Intramolecular Relaxation Processes."
Dr. M. G. H. Wallbridge, University of Sheffield. "Hydride Chemistry."

Department of Civil Engineering

- Dr. Laurits Bjerrum, Norwegian Geotechnical Institute. "Lessons for the Future from Failures of the Past."
Professor H. O. Ireland, University of Illinois. "Drilled Piers"; "An Engineering Approach to Earth Pressures on Retaining Walls."
Professor F. Leonhardt, Technical University of Stuttgart. "Some New Aspects on Detailing of Reinforcement for Concrete Structures"; "Construction Methods for Long-span Prestressed Concrete Bridges."
Professor Ernest F. Mazur, University of Illinois. "Buckling of Cylindrical Shells."
Dr. J. D. Mollard, J. D. Mollard and Associates, Regina. "Site Selection and Route Location using Airphoto Interpretation Techniques"; "Applications of Airphoto Interpretation to Civil Engineering Projects."
Professor W. O. Pipes, Northwestern University. "Microbiology of Activated Sludge"; "Engineering Properties of Biological Growths for Waste Treatment."
Mr. K. Roever, Eddie Black Limited. "Development and Applications of Special Camera Systems for Well and Sewer Inspection."
Mr. F. J. Sanger, US Army Cold Regions Research and Engineering Laboratory. "Practical Aspects of Frost in the Ground"; "Principles of Frost in the Ground."
Dr. Peter C. Wroth, University of Cambridge. "The Mechanical Behavior of Soils Compared with other Engineering Materials."

Department of Computer Science

- Professor B. W. Arden, University of Michigan. "Time Sharing Modelling and Measurement."
- Dr. F. L. Bauer, Mathematisches Institut der Technischen Hochschule, Munich. "Generalized Gerschgorin Circles."
- Professor George E. Collins, University of Wisconsin. "The SAC-1 System for Symbolic and Algebraic Calculation."
- Professor A. A. Dorodnicyn, Academy of Science of the USSR. "The Solution and Navier-Stokes Equations."
- Professor G. Golub, Stanford University. "Bounds for the Error of Linear Systems of Equations using the Theory of Moments."
- Professor B. Herzog, University of Michigan. "Computer Graphics for Designers"; "Curves and Surfaces for Computer-aided-design"; "Drawl as a Computer Graphics Teaching Tool"; "Terminal Independent Problem Solving."
- Professor Saul Rosen, Purdue University. "Large-scale Time-sharing Systems."
- Professor G. Salton, Cornell University. "Recent Developments in Fully-automatic Document Retrieval."
- Professor P. Wegner, Cornell University. "The Structure of Programming Languages."
- Professor O. Widlund, University of Uppsala, Sweden. "Alternating Direction Implicit Methods for Elliptic Equations."

Department of Electrical Engineering

- Dr. Jorgen Bach Anderson, Technical University of Denmark. "Electrostatic and Electromagnetic Waves in Plasma Columns."
- Professor Harold Barlow, University College, London. "Hybrid TEM - Surface Waves in Coaxial Cables."
- Professor Neil M. Brice, Cornell University. "Audio Frequency Radio Waves Observed on Satellites."
- Professor W. Findeisen, University of Warsaw. "A Case Study in Dynamic Optimization."
- Professor Dennis Gabor, CBS Laboratories, Stanford. "Holography."
- Mr. V. C. Hamacher, Syracuse University. "Iterative Arrays and Computational Complexity."
- Dr. L. A. Harris, General Electric Company. "Secondary Electron Spectroscopy."
- Dr. J. T. Jacobs, University of Illinois. "Size Effects in the Temperature Variation of Electrical Conductivity of Epitaxial Gold Films."
- Professor Arthur A. Oliner, Polytechnic Institute of Brooklyn "New Challenges for Microwave Theory and Techniques."
- Professor W. J. Poppelbaum, University of Illinois. "Stochastic Processes Applied to Computing."
- Dr. A. J. Rainal, Bell Telephone Laboratories. "The Phase Principle for Measuring the Location or Spectral Shape of a Discrete Radio Source."
- Dr. S. M. Reddy, University of Iowa. "A Class of Convolution Codes and a New Decoding Algorithm."
- Dr. A. M. Revington, Syracuse University. "Adaptive Recursive Filtering."
- Mr. M. Sablatash, University of Wisconsin. "Network Theory and Signals: Past, Present and Future."
- Dr. B. McA. Sayers, University of London. "Point Process Analysis in Neural and Cardiovascular Studies."
- Professor H. Weissmann, Institut für Elektrische Anlagen und Steuerungstechnik, Technische Hochschule, Hanover, Germany. "Energy Development in the Mediterranean Area"; "Industrial Control Engineering."

Department of Geology

- Professor H. L. Barnes, Pennsylvania State University. Discussion and Seminar on Geochemistry.
- Professor Bernhard Kummel, Museum of Comparative Zoology, Harvard University. "Continental Drift in the Light of a Triassic Ammonoid Fauna."
- Dr. H. R. Shaw, United States Geological Survey. "The Diffusion of Water in Salic Magmas."

Department of Industrial Engineering

- Professor Robert Roy, Johns Hopkins University. "Tactics and Strategy in Industrial Engineering."
- Mr. E. C. Williams, Ministry of Transport, London, England. "Operational Research in Transportation."

Department of Mathematics

- Professor J. L. Britton, University of Illinois. "The Burnside Problem."
- Professor F. E. Browder, University of Chicago. "Recent Results in Nonlinear Functional Analysis"; "Semigroups of Nonlinear Operators and their Infinitesimal Generators."
- Professor Arthur Erdelyi, Edinburgh University. "Singular Perturbations."

- Professor A. Frühlich, University of London. "Galios Homomorphisms"; "Unit Signatures and Class Number."
- Professor H. Hopf, Swiss Federal Institute of Technology. "The Bolzano Theorem and the Homotopy Groups of Spheres"; "Some Congruence Theorems for Surfaces in Riemann Spaces."
- Professor D. J. Lewis, University of Michigan. "Diophantine Equations in many Variables."
- Dr. W. L. Miranker, IBM. "Parallelism in Numerical Analysis"; "Numerical Integration of Stiff Systems of Ordinary Differential Equations."
- Dr. A. M. Ostrowski, ETH, Zurich. "On Automatic Methods for Solving Polynomial Equations."
- Dr. D. Pedoe, University of Minnesota. "Geometrical Thinking, Part I"; "Geometrical Thinking, Part II."
- Professor R. R. Phelps, University of Washington, Seattle. "Properties of Extreme Points of Compact Convex Sets."
- Professor Abraham Robinson, Yale University. "Compactification and Non-standard Analysis."
- Professor H. Rund, University of South Africa. "Generalized Metrics and Connections on Complex Manifolds."
- Professor K. Stewartson, University of London. "Some Recent Developments of Boundary Layer Theory"; "The Taylor Column."

Department of Mechanical Engineering

- Dr. G. Augusti, Università di Napoli. "Limit Analysis of Thin-walled Beams with Warping Restraints."
- Dr. Rene Chevray, Johns Hopkins University. "Experimental Investigation of a Turbulent Axisymmetric Near-wake."
- Dr. Michel Coantic, Université d'Aix-Marseille. "Interaction between Atmosphere and Ocean."
- Professor M. A. Dokainish, University of Iowa. "Vibration."
- Dr. C. Farrell, University of Iowa. "Wave Resistance of a Submerged Spheroid."
- Professor Peter Griffiths, Massachusetts Institute of Technology. "Dropwise Condensation."
- Professor R. M. Haythornthwaite, Pennsylvania State University. "Analysis of Strain-hardening Data."
- Professor A. C. Heidebrecht, McMaster University. "Behavior of Small Scale Shear Wall Buildings Subjected to Lateral Loads."
- Dr. H. Isoda, University of Tokyo. "Combustion of Fuel Droplets in an Oxidizing Atmosphere."
- Professor Y. K. Liu, University of Michigan. "Applications of Ultraspherical Polynomials to Nonlinear System Analysis."
- Dr. M. Magi, Chalmers University of Technology, Göteborg, Sweden. "The General Case of Conjugate Action of Two Cylindric Involute Gears."
- Professor G. V. Parkinson, University of British Columbia. "Aero-dynamically Induced Autorotation."
- Professor H. Schwieger, Visiting Professor, University of Waterloo. "Investigations on the Stability of Cylindrical Shells under Axial Impact."
- Professor B. R. Seth, Dibrugarh University, Assam, India. "Transition Theory of Elastic-plastic Transition and Creep."
- Professor R. B. Testa, Columbia University. "Stresses in Fibre-reinforced Beams."
- Professor M. W. Thring, University of London. "Research on Large Flames."
- Professor W. K. Tso, McMaster University. "Coupled Torsional and Bending Vibrations of Open Sections."
- Mr. H. R. Warren, DeHavilland Ltd., Malton. "Spacecraft Design."

Department of Metallurgy and Materials Science

- Professor John W. Cahn, Massachusetts Institute of Technology. "Interface Motion in Rapid Non-martensitic Phase Transformation."
- Professor W. Davenport, McGill University. "Transport Behavior at Metal-slag Interfaces."
- Professor A. Dube, Université Laval. "Recent Developments in Bainite Research."
- Professor H. Gatos, Massachusetts Institute of Technology. "Impurity Distribution in Semiconductor Single Crystals."
- Dr. H. Oye, Argonne National Laboratory. "Studies of Co-ordination Equilibria in Fused and Gaseous State by Absorption Spectroscopy."
- Dr. W. B. Pearson, National Research Council. "The Crystal Chemistry of Metals."
- Professor E. Peters, University of British Columbia. "Chemical and Electrochemical Decomposition of Sulphides in Aqueous Solutions."
- Dr. B. C. H. Steele, Imperial College, London. "Electrochemical Aspects of Ceramic Materials."

Department of Physics

- Professor H. Z. Cummins, Johns Hopkins University. "Light Scattering Experiments on Ferroelectric Phase Transitions."

- Professor R. H. Dicke, Princeton University. "Gravitation and the Sun's Rotation."
 Dr. Joseph A. Giordmaine, Bell Telephone Laboratories. "Picosecond Light Pulses."
 Dr. G. Herzberg, National Research Council. "The Problem of the Diffuse Interstellar Lines."
 Professor E. P. Hincks, Carleton University. "Spectroscopy of Muonic Atoms."
 Professor Leo P. Kadanoff, University of Illinois. "Critical Behavior near Phase Transitions."
 Professor A. Kastler, Université de Paris. "Interactions between Atoms and Electromagnetic Fields Studied by Optical Pumping Techniques."
 Dr. T. F. Kycia, Brookhaven National Laboratory, Upton, New York. "Recently Discovered Resonance in Particle Physics."
 Dr. J. W. McGowan, Gulf General Atomic, California. "Electron-Hydrogen Atom Elastic and Inelastic Scattering."
 Professor Horst Meyer, Duke University. "Solid Hydrogen."
 Professor R. Novick, Columbia University. "Coherence in Ion-Atom Collisions."
 Dr. P. M. Platzman, Bell Telephone Laboratories. "Spin Waves in Fermi Seas."
 Professor N. F. Ramsey, Harvard University. "The Electric Dipole Moment of the Neutron."
 Professor L. O. Roellig, Wayne State University. "Positron Annihilation and Zero-point Bubble Formation in Liquid Helium."
 Professor J. J. Sakurai, University of Chicago. "Spectral-function Sum Rules and wp Mixing."
 Professor J. R. Schrieffer, University of Pennsylvania. "Critical Quantum Spin Fluctuations in Metals."
 Professor K. W. H. Stevens, University of Nottingham. "Microwave Ultrasonics and Thermal Conduction Experiments on Chromium Doped MgO."
 Dr. L. R. O. Storey, French National Centre for Scientific Research. "Whistlers."
 Professor M. Tinkham, Harvard University. "Superconductivity Today."
 Dr. R. Walstedt, Bell Telephone Laboratories. "Exchange Effects in Rhodium Cobalt Alloys."

DIVISION IV

Department of Anatomy

- Dr. R. Robineaux, Hôpital St. Antoine, Paris. "*In Vitro* Action of Ribonuclease on Living Cells Nucleoli: A Morphodynamic and Ultrastructural Study."

Department of Biochemistry

- Professor Leo G. Abood, University of Rochester. "The Role of Calcium and ATP in the Excitatory Membrane"; "Transport Mechanisms across Biological Membranes."
 Professor Vincent G. Allfrey, The Rockefeller University. "Structure Changes in Nuclear Proteins at Times of Gene Activation."
 Professor R. Bandurski, Michigan State University. "The Enzymology of Sulphite Reduction"; "Cell Wall Autolysis in Plants."
 Dr. E. A. Barnard, Molecular Enzymology Unit, SUNY, Buffalo, N.Y. "Reactivity and Evolutionary Studies on Pancreatic Ribonuclease."
 Professor Calvin Giddings, University of Utah. "Dense Gas Chromatography: a New Approach to the Separation of High Molecular Weight Species"; "Principles of Gel Filtration Chromatography."
 Professor Robert L. Herrmann, Boston University School of Medicine. "Control of DNA Replication in *E. Coli*."
 Professor F. Neidhardt, Purdue University. "The Translation Apparatus of Phage-infected Bacteria"; "Current Studies in Amino Acid Activating Enzymes in Bacteria."

Department of Botany

- Professor G. A. de Zoeten, University of Wisconsin. "Studies of the Relationship between Structure and Function in Virus Infected Plant Cells."
 Professor J. Heslop-Harrison, University of Wisconsin. "Cytoplasmic Events Associated with Meiosis and Pollen Development."
 Dr. Hugh Iltis, University of Wisconsin. "Glaciation, Climate and Floristic History: the implication of the Western elements in the flora of Northeastern North America."
 Professor J. M. Watt, University of Witwatersrand, South Africa (retired). "Herbalists, Diviners and Sorcerers in the Indigenous Practice of Medicine and Magic in Africa."

Department of Dentistry

- Professor James Avery, University of Michigan. "The Vascular and Cell-fiber Picture in the Pulp"; "The Neural Aspects of Development and Aging in the Pulp."
 Dr. Richard Ten Cate, Guy's Hospital, London. "Histochemical Development of Teeth"; "Topics in Oral Biology."
 Professor Y. Kawamura, Osaka University. "Oral Physiology and Clinical Dentistry"; "Neurogenesis of Chewing Movements."

Department of Forestry

- Dr. E. M. Gould, Jr., Harvard University. "Modelling for the Forest Planning Process for Computer Analysis."
- Professor Ivan A. Klemencic, University of Ljubljana, Yugoslavia. "The Optimal Density of Logging Roads under Certain Conditions."
- Dr. Z. Koran, Pulp and Paper Research Institute of Canada, Montreal. "The Electron Microscopy of Wood Fibre Surfaces."
- Dr. R. Knowles, Macdonald College, McGill University. "Nitrogen Transformations in Black Spruce Humus."
- Dr. Paul O. Rudolf, Principal Silviculturalist (retired), United States Forest Service. "Reforestation in the Lake States."

Department of Hygiene

- Dr. J. E. Davies, Dade County Department of Public Health, Miami, Florida. "Public Health Problems of Pesticides."
- Professor Arnold W. Ravin, University of Rochester. "The Transfer of Genes between Bacterial Species"; "The Mechanism of the DNA Helping Effect in the Transformation of Streptococci."
- Professor E. J. L. Soulsby, University of Pennsylvania. "Cellular Aspects of Immunity to Parasites."
- Professor E. R. Tichauer, New York University Medical Center. "Biomechanical Work Stress: Challenge to Hygiene and Industrial Medicine."

Department of Medical Biophysics

- Dr. J. Kerry Thomas, Argonne National Laboratories. "The Reactions of Ions in the Radiolysis of Liquids."

Department of Pathological Chemistry

- Dr. Kenning M. Anderson, University of Chicago. "Some Aspects of the Mode of Action of Testosterone on the Ventral Prostate."
- Dr. Morris Kates, National Research Council. "The Chemistry and Metabolism of Dialkyl Glycerol Ether-containing Lipids in extremely Halophilic Bacteria."

Department of Pathology

- Dr. Kimishige Ishizaka, Children's Asthma Research Institute and Hospital, Denver, Colorado. "Human Reagenic Antibody and γ E Immunoglobulin."
- Dr. Joerg Jensen, University of Miami, Florida. "The Participation of Complement in Immune-biological Phenomena."
- Dr. A. G. Sanders, Institute for Medical Research, Chicago. "Reactions to Injury of Small Blood Vessels."
- Dr. Peter Ward, Armed Forces Institute of Pathology, Washington, D.C. "The Role of Complement in Induction of Inflammation."

Department of Pharmacology

- Dr. H. Blaschko, Oxford University. "Storage and Release of Catecholamines."
- Dr. A. S. V. Burgen, Cambridge University. "The Application of Nuclear Magnetic Resonance to the Problem of how Anaesthetics produce their Action."
- Dr. M. P. Earles, Chelsea College of Science, London. "The Origins of Experimental Pharmacology."
- Dr. C. C. Gale, University of Washington. "Physiological Effects of Local Temperature Change in the Hypothalamus."
- Dr. Ian Geddes, University of Liverpool. "Studies with Br^{82} labelled Halothane."
- Dr. Lawrence Spero, State University of New York, Downstate Medical Center. "Studies on Cation Efflux and Smooth Muscle Contraction with Acetylcholine."
- Professor P. Stern, Institut za Farmakologiju, Medicinskog Fakulteta, Sarajevo, Yugoslavia. "The Role of Histamines in Inflammation."

Department of Pharmacy

- Dr. John E. Christian, Purdue University. "Applications of Radioisotopes to Research."
- Dr. Allan H. Conney, Burroughs Wellcome & Co. (USA) Inc. "Pharmacological Implications of Microsomal Enzyme Induction."
- Professor G. N. Vaughan, Victoria College of Pharmacy, Victoria, Australia. "The Conformation of Drug Molecules."

Department of Physiology

- Sir David Cuthbertson, University of Glasgow. "The Metabolic Response to Injury with Particular Reference to Environmental Temperature and Diet."
- Dr. John H. Dirks, Royal Victoria Hospital, Montreal. "Regulation of Sodium Reabsorption by the Proximal Tubules"; "Site and Mechanism of Action of Various Diuretics."
- Dr. B. Issekutz, Dalhousie University. "Intramuscular Energy Sources in Exercising Normal and Pancreatectomized Dogs."
- Dr. K. Krnjevic, McGill University. "Inhibitory Mechanisms in the Cerebral Cortex"; "Chemical Factors Concerned in Cortical Activity."

- Dr. D. S. Kronfeld, University of Pennsylvania. "The Origin of the Ketosis and the Hypoglycaemia in Spontaneous Bovine Ketosis."
- Dr. R. M. Preshaw, Mayo Clinic. "Some Regulatory Mechanisms for External Pancreatic Secretion."
- Dr. E. M. Renkin, Duke University Medical Center. "Blood Flow and Transcapillary Exchange"; "Regulation of Blood Flow in the Peripheral Vascular Beds."
- Dr. Hans-Dieter Söling, University of Göttingen, Wilhelmplatz, Germany. "Regulation of Hepatic Gluconeogenesis by Fatty Acid Oxidation."
- Dr. James A. F. Stevenson, University of Western Ontario. "The Ins and Outs of Water: Some Experimental Problems in the Investigation of the Control of Water Intake."

Department of Psychology

- Professor P. P. G. Bateson, Cambridge University. "What is Imprinting?"
- Dr. Sam Feldman, Albert Einstein Medical Centre. "The Reticular Formation: Comments on Wakefulness and Consciousness."
- Professor Richard Held, Massachusetts Institute of Technology. "On the Transformation and Development of Visual Motor Coordination."
- Professor G. Keppel, Northwestern University. "Recording Cues in Short-term Memory."
- Dr. Daniel Lehrman, Rutgers University. "Hormone Behavior Interactions in the Regulation of Reproductive Behavior in Animals."
- Professor Anatol Rapoport, The University of Michigan. "Experiments in Conflict and Co-operation."
- Dr. Wilson P. Tanner, The University of Michigan. "Doctrine of Specific Nerve Energy and Psychophysics."

Department of Zoology

- Professor E. W. Caspari, University of Rochester. "The Genetic Basis of Eye Color Pigmentation in *Ephestia*."
- Professor John D. Corliss, University of Illinois. "Morphogenesis and Phylogeny of Ciliate Protozoa."
- Dr. Hans Flugel, Institut für Meereskunde, Kiel, Germany. "Electromicroscope Studies of Developing Trout Eggs."
- Professor John L. Hamerton, Guy's Hospital, London. "Chromosome Translocation in Man."
- Professor Peter Marler, The Rockefeller University. "Communication in Monkeys and Apes."
- Professor Leonard Nelson, Medical College of Ohio at Toledo. "What Motivates a Sperm?"
- Professor J. L. Roberts, University of Massachusetts. "Ventilatory and Cardiac Accommodations for Thermal Stress in Trout."
- Professor P. Sevenster, Queen's University. "Experiments on the Organization of Courtship Behavior."
- Dr. Tuneso Yamada, Oak Ridge National Laboratory, Oak Ridge, Tennessee. "Control of Cellular Differentiation."

THE DEAN OF THE FACULTY OF DENTISTRY

Throughout the 1967-68 session the Curriculum Review Committee under the chairmanship of Professor D. F. Forster, Executive Assistant to the President, has met on a weekly basis interviewing people and studying submissions made to the Committee and responses to questionnaires. Undergraduate students, recent graduates and graduates of earlier years, staff and others, have appeared personally before the Committee to present their views in respect to changes which should be made in the present curriculum and in the organizational structure of the Faculty, in order to meet the long-term needs of dental education in a changing society. The men and women who graduate from this and the other divisions of the University in the next few years might well be serving their community, and in the case of the health sciences providing health services to the people of their community, in the year 2000. The health professions must become more sensitive to the needs of society,

and keep pace with the sociological changes which seem inevitable in the future. The Chairman of the Committee has indicated that he hopes to have a preliminary report ready for presentation to the Faculty Council in the fall of 1968. Therefore the 1968-69 session promises to be an active period of study and deliberation for members of the Faculty Council.

Coincident with the undergraduate curriculum study, another Committee has been assembling pertinent information and statistics relative to the responsibility of this Faculty in supplying trained specialists for practice and urgently needed dental personnel for teaching and research in Canada. This Committee, under the chairmanship of Professor A. M. Hunt, has focused its attention on three major areas, namely, projected enrolment figures in all categories of postgraduate and graduate dental education between now and 1980, the new physical facilities necessary to accommodate the expanded enrolment, and the number and types of additional staff which will be required to cope with the expanded teaching and research activities in the future. The Committee emphasizes that the staff requirements are the most urgent, and has recommended that recruitment of additional suitably trained staff for the enlarged programme should begin immediately. It is perhaps significant that the Province of Ontario made available to the University for the 1968-69 session a special supplementary grant "for expansion of graduate and postgraduate programs in dentistry." This provision will facilitate immediate action in recruitment of staff. It should be recorded that another development which complements the staff recruitment activity referred to above is the availability of financial assistance under the Province of Ontario Teacher Training Program. This support is in the form of bursaries for the training of staff for teaching appointments in the Health Sciences in Ontario Universities. In 1967-68 three bursaries were awarded to candidates sponsored by this Faculty, and assistance has been sought in support of four candidates in 1968-69. The establishment of this programme provides significant encouragement to potential teachers, and permits them to undertake from one to three years of postgraduate or graduate education the better to prepare themselves for a career in teaching and research.

During 1967-68 the Faculty has been pleased to co-operate in the Survey of the Health Sciences being undertaken by a panel of internationally prominent educationists working in collaboration with two firms of Canadian management consultants. The terms of reference for the Survey have been studied with interest by senior members of the staff. Pursuant to a series of interviews with staff members, the consultants have prepared a "Statement of Objectives" of the Faculty of Dentistry. This statement has been reviewed and approved by the Executive Committee of the Faculty Council.

The principle of student representation on Committees and the Faculty Council was reviewed on several occasions during the 1967-68 session. As a preface to these deliberations, the Faculty was reminded that an active Student-Staff Liaison Committee has been in existence since 1954. This group of students and staff has met two or three times each year to discuss problems of mutual interest and concern. Matters of substance discussed at these meetings have frequently been referred to departmental chairmen or the appropriate committee of the Faculty Council for action. The Liaison Committee has served a most useful function since its formation.

However, in the fall of 1967 Council agreed to invite the Dental Students Society to appoint one voting representative and an alternate to full membership on the following standing Committees of Council: Scholarships and Awards, Library and Museum, Instrument, and Hospital Services. The students subsequently appointed to these committees have been very effective participants in their deliberations. The question of student representation on the Faculty Council is still under review.

During the current session extracurricular engagements have been numerous for many members of the academic staff. Their scientific and clinical presentations to the profession, locally, provincially, nationally and internationally, are too numerous to itemize individually, but the list is impressive. Suffice it to say that they have

participated in short courses conducted at other institutions and presented papers in many centres in both Canada and the United States. The international contacts included papers presented by Professors D. G. Woodside and A. L. Posen at the Angle Society of Orthodontists meeting in Puerto Rico in January. Professor A. T. Storey participated in a joint University of Michigan - University of Alexandria project in Cairo, May 25 to June 10; the study, under the direction of Dr. James E. Harris, Department of Orthodontics, University of Michigan, included radiographic and cephalometric examinations of skulls of the royal mummies and nobles of the 5th and 6th centuries, exhumed by the late Professor George A. Reisner of Harvard University. Professor D. G. Woodside addressed the annual meeting of the European Society of Orthodontists in Monte Carlo on June 4. Professor H. G. Poyton will deliver a paper at the 1968 meeting of the Fédération Dentaire Internationale in Varna, Bulgaria, September 16-22; he will also be the official representative of the Canadian Dental Association at the meeting in Bulgaria.

The Faculty of Dentistry serves as the local sponsor of the Toronto Section of the International Association for Dental Research. In this role during 1967-68 seventeen meetings were arranged with speakers of international reputation from Osaka University, the University of Michigan, the University of Manitoba, the University of Pittsburgh, McGill University, Guy's Hospital (England) and the University of Toronto.

We record with deep regret the deaths of two part-time members of the staff during the current session in the persons of Dr. G. D. Beierl and Dr. W. S. Schwetz.

Professor R. M. Grainger, Chairman of the Division of Dental Research, resigned from the staff on August 31, 1967, to become Director of Clinics at the Faculty of Dentistry, University of British Columbia. On January 1, 1968, Dr. John Hibberd of Melbourne joined the staff to assume the professorship of Restorative Dentistry.

As of July 1, 1968, Professor P. G. Anderson, Director of the Clinics, will assume the role of Associate Dean for Undergraduate Student Affairs, and Professor A. M. Hunt, Director of the Division of Postgraduate Dental Education, will become Associate Dean for Postgraduate Dental Education.

In keeping with the policy of recruitment of new full-time staff, we record with pleasure the following additions on a full-time basis, as of July 1, 1968: Professor George S. Beagrie, coming from Edinburgh, Scotland; Professor A. Richard TenCate, from London, England; Drs. D. B. McAdam, A. Bruce Hord and J. A. Bigelow, all from Toronto. The following former part-time staff will assume full-time status; Professor D. G. Woodside and Associate Professor F. Popovich. Dr. Keith W. Davey is promoted to full professorial rank and Chairman of the Department of Paedodontics.

We regret the loss of the following staff members who have accepted appointments elsewhere. Dr. Max A. Listgarten leaves on July 1 to further his research activities in the newly created Center for Oral Health Research at the University of Pennsylvania. Drs. D. L. Catena and G. E. Longhurst, both part-time members of the staff in Dental Radiology, assume duties as Assistant Professors of Dental Radiology, at Temple University and UCLA respectively.

The Faculty is again indebted to a host of individuals and organizations for continuing support. On this occasion I would like to acknowledge the valuable help of Dr. John D. Hamilton, Vice-President (Health Sciences), in the University. Since assuming this office two years ago he has been consistently responsive to recommendations important to the Faculty.

During the current session we have been the recipients of further support from the Ladies' Auxiliary to the Academy of Dentistry, the Dental Alumni Association, the W. K. Kellogg Foundation and the Canadian Fund for Dental Education.

Finally, my grateful and sincere thanks are extended to the academic and non-academic staff of this Faculty, and to the University Administration in general, for continuing assistance and co-operation.

Roy G. ELLIS

THE DEAN OF THE FACULTY OF PHARMACY

Some interesting features of the session have been: continuing capacity enrolment in the first and second years, a record number of graduates at the master's level, a fourfold increase in extramural support for research, extension of the hospital pharmacy residency programme, and the inauguration of plans for a new direction in pharmaceutical education, wherein the student will receive clinical experience in the hospital.

For the second successive session a surplus of qualified candidates applied for admission to both first and second years. Consequently many of the students who fail in these years now are unable to have a second chance.

Eleven candidates in the Graduate Department completed requirements for the degree Master of Science in Pharmacy, with theses as follows: under Professor R. M. Baxter: "The Incorporation of Fluoroacetate into Uridine Nucleotides of *Staphylococcus aureus*"; under Professor G. R. Duncan: "Isolation Studies on *Brucea sumatrana*"; under Professor J. G. Nairn: "A Study of the Binding and Rate of Release of Organic Acids from Ion-Exchange Resins," "The Effect of Nonionic Surfactant and Temperature on the Stabilization of Benzocaine," "The Stabilization of Local Anesthetic Esters in the Presence of a Nonionic Surfactant"; under Professor G. R. Paterson: "A Preliminary Study of the Effect of Defloration and Maleic Acid Hydrazide on Cardioactive Glycosides in *Ornithogalum umbellatum*"; under Professor F. W. Teare: "Gas Chromatography of Convallatoxin"; under Professor G. C. Walker: "The Influence of Formulation Factors on the Release and Absorption of Tolbutamide from Solid Dosage Form," "The Kinetics of Acid Hydrolysis of Diacetylmonoxime," "Growth and Metabolic Studies of *Trichophyton tonsurans*," "The Effect of Propylene Glycol on the Duration of Action of 2-PAM-chloride following Intramuscular Injection."

Support for research from all sources rose substantially to \$231,000 from \$52,500 in the previous session. In large part this resulted from the assumption by the Medical Research Council of the responsibility for funding research in schools of pharmacy. This resulted in the awarding to this Faculty of approximately \$168,000 in operating grants and major equipment grants. This is particularly encouraging to the investigators in this Faculty because of the careful evaluation of all research projects before they are supported. The recognition thus accorded attests to the quality of research being done by my colleagues. With this measure of support it is increasingly urgent that the present restrictions on the PH.D. programme in Pharmacy be removed so the University of Toronto may fulfil its inherent responsibility in respect to graduate pharmaceutical education.

The postgraduate professional programme of hospital pharmacy residencies was extended to include the Toronto General Hospital and St. Michael's Hospital. Seven residents were enrolled in the five hospitals involved, one each from the universities of British Columbia and Alberta, two from Saskatchewan, and three from Toronto. The residencies are not only providing valuable training for hospital pharmacists, but they are resulting in improved and extended pharmaceutical service in the hospitals concerned. Through concurrent seminars and conferences and the posting of these graduates to other hospitals the improvements in quality of service are extending to other institutions in the province and, in fact, elsewhere in Canada.

In recognition of anticipated changes in the future practice of pharmacy certain curricular changes have been inaugurated. Essentially these will be designed to make the pharmacy student "patient-oriented" as well as "product-oriented." While a number of changes will be involved, a very significant one concerns the introduction of the senior student into the patient care environment as a member of the health team. This will commence as a pilot project in the Toronto General Hospital with a group of some 15 students next session under Professor D. J. Stewart and his group of clinical pharmacists. Depending upon the success of this project, it is planned to

extend this clinical pharmacy training to involve all members of the senior class. This will necessarily in due course involve other hospitals, particularly Sunnybrook. In fact an outline of the Faculty's plans for this University Hospital have been drafted and submitted to the Sunnybrook Board through the Vice-President (Health Sciences).

The staff of this Faculty continue to make useful contributions through extramural service to the profession, to government and to scientific and cultural groups. As reported elsewhere, Professors R. C. Baxter, S. I. Kandel, G. R. Paterson and E. W. Stieb have all presented invitational papers to recent conferences and symposia in the United Kingdom, the United States and Canada. Professor G. C. Walker and Professor D. J. Stewart, as well as the Dean, have been involved in health science governmental committees. Professors Kennedy, Nairn, Paterson, Stewart and Walker contributed to the May seminar of the Ontario College of Pharmacy. The promotion of a potentially valuable historical project, the Niagara Apothecary Shop Project, has engaged Professors Paterson and Stieb.

Visiting lecturers to the Graduate Department of Pharmacy, sponsored by the School of Graduate Studies, were: Dr. G. N. Vaughan, Head of the Department of Pharmaceutical Chemistry, Victoria College of Pharmacy, whose subject was "The Conformation of Drug Molecules"; Dr. John E. Christian, Head of the Bionucleonics Department, Purdue University, speaking on "Application of Radioisotopes to Research"; and Dr. Allan H. Conney, Head, Department of Biochemical Pharmacology, Burroughs Wellcome & Co. (U.S.A.), on "Pharmacological Implications of Microsomal Enzyme Induction."

The Undergraduate Pharmaceutical Society conducted a successful Open House on Saturday, February 24, when well over 1,000 visitors toured the laboratories and viewed a number of experiments and demonstrations presented by the students.

Excellent relations exist between the students and staff of the Faculty. A Staff-Student Liaison Committee fulfils a useful role in communications. Our system of faculty advisers continues to provide a means of helping and encouraging those students who require such aid. The Undergraduate Pharmaceutical Society has been invited to name two members to the Faculty Curriculum Committee.

During the session three new awards were received: the Charles E. Frosst Scholarship of \$250, the E. A. Lovell Scholarship of \$500, and the Parke, Davis and Co. History Prizes. In addition, Rokeah Chapter of the Rho Pi Phi Fraternity again awarded four \$250 scholarships. Mrs. R. O. Hurst again made a contribution to the Faculty. For all these benefactions grateful thanks are expressed to the donors.

This year of progress has only been possible through the loyalty, support and co-operation of my colleagues of the Faculty, all members of the Faculty Council, the students, and on various occasions the alumni. To all of them I extend my grateful thanks and appreciation.

F. NORMAN HUGHES

THE DEAN OF THE FACULTY OF ARCHITECTURE, URBAN AND REGIONAL PLANNING AND LANDSCAPE ARCHITECTURE

The academic year 1967-68 has been a time of adjustment and experiment as we made the transition from School to Faculty with Chairmen appointed to our three departments: Architecture (Andrews), Urban and Regional Planning (Dakin), and Landscape Architecture (Strong).

Our long but descriptive title has been much criticized and the obvious diminutive is naturally unacceptable to the other departments. It would seem that sooner or later we will have to change from the specific to a generic title, possibly "environmental design" as formerly approved by Senate.

New appointments to the staff and promotions have greatly strengthened our potential in the three departments and we continue to develop our policy of supplementing "internal" theoretical and practical course work by using visiting specialists from a wide range of disciplines, and with richly varied professional backgrounds.

The general standard of student achievement at both graduate and undergraduate levels has been high. Applications for admission increase year by year and it is evident that we shall be obliged either to impose further restrictions on admission, or to seek new ways and means of handling increased numbers – or to move to more spacious premises, preferably a building designed specifically to meet our needs.

In this regard it should be noted that over 340 applications were received by the Admissions Department of the University, and of those admissible to our undergraduate departments over 150 were interviewed during the summer by our selection committees under the direction of Professor Kent Barker. So far, incidentally, there is little evidence that the new courses at the University of Waterloo have made any appreciable difference to the pressures being exerted on us, but a school of architecture is to be opened at Carleton University in the fall of 1968 and in time this may have some effect upon the volume of applications for admission to one of our departments.

Since 1964, when we introduced Landscape Architecture and began to investigate ways and means of revising the structure of our courses in order to improve our general offering, a great deal of work has been done by the staff at all levels. During 1967–68 the architecture programme has come under especially close scrutiny and a revised structure is emerging that should be of interest to other professional faculties and schools here and elsewhere. In this context student comment and criticism have been particularly helpful.

As an alternative to the familiar pattern of parallel courses of lectures with a sequence of relatively short studio design subjects progressing from the simple to the complex, it is proposed to develop a structure which could be represented graphically by a string of beads. The continuous linking element would be a "core" programme of a single design subject extending through the academic year with a series of nodal points, or points of concentration, where essential information and relative educational material would be introduced. Regular lectures, except in certain selected basic subjects and optional courses, might be largely superseded by seminars and other means of communication augmented by modern audio-visual aids.

Structural changes of a similar kind were introduced some years ago at Virginia Polytechnical Institute by Charles Burchard and have proved very successful. Dean Burchard gave two seminars to our staff in the spring, and his lively observations on the pros and cons of such a system helped resolve doubts, and encouraged us to proceed. Professor Peter Prangnell, who came to us from Columbia University in the fall of 1967, has been largely responsible for developing this programme. He has been assisted by a group of the staff, notably by Professors Watts and Wagland who, individually, have had special responsibility for working out the second and third year programmes, and by Professor Raymore who has helped co-ordinate the work of those concerned with technology. Since students in the junior years of the Landscape Architecture programme have been taking some classes in common with students of Architecture, that Department also has been involved in the discussions.

In order to help improve interdisciplinary communication we hope to be able to offer some of our regular courses as electives next session. There would seem to be a strong case now for the University forming a "pool" of elective subjects – some of an interdisciplinary nature – on which any Faculty or School could draw. At the moment the so-called "Religious Knowledge Options" in the Faculty of Arts

and Science are the only ones generally available and their scope is somewhat limited.

Research

We have been concerned for some considerable time about the architectural and community planning problems of Canada's northlands and several graduate students have attempted to contribute through individual research. One of these, Sigmund Dietze, who began his research in 1960, subsequently designed and built two northern communities and became mayor of one of them. He has just completed an excellent thesis which, we hope, will be published. With the promise of a grant of \$15,000 from the Department of Tourism and Information of the Ontario Government we set up an interdisciplinary research team to investigate the feasibility of establishing regional centres in the north, and to study the special problems of designing for life in isolated communities.

Although our promised grant was withdrawn at short notice because of the economic recession, our research team has carried on with its work in the belief that other and more substantial aid would be forthcoming for such an important project. This work is being done under the general supervision of Professor Morton Katz.

We are investigating also the possibility of introducing another major research project in the near future, one related to the design and planning of hospitals in the urban community.

Professor Goulding is continuing with his assignment of preparing an inventory of buildings of architectural merit in Ontario. This research has been made possible by an ongoing grant from the Department of Tourism and Information.

The growing interest among staff and students alike in audio-visual aids to teaching and learning is reflected in the acquisition of 8 mm. movie equipment and a "loop" film projector which are simple to operate and relatively inexpensive to maintain. The Faculty has also acquired a Head Camera from Dr. Llewellyn Thomas and experiments are now being made to determine the possibilities of using this ingenious instrument as a research tool in the fields of planning and architectural design.

Exhibitions

Because of space problems our valuable exhibition room had to be converted to a design studio, and largely for this reason the programme was somewhat curtailed in 1967-68. Through the good offices of Goethe House and the West German Government, however, we were able to obtain a fine exhibition of German Church Architecture and, of course, we held our traditional Dorset Night and Open House.

Visitors

In our special guest lecturer series we have had visits from the following: Sir Hugh Wilson, President of RIBA and architect-planner of Cumbernauld New Town, Scotland, who spoke on the design of Urban Communities; Sir Hugh Casson, consultant on the Department of National Defence Headquarters Building, Ottawa, who talked about his work as a university planner; Conrad Lehmann of Berlin, who participated in the design of the German Pavilion at Expo '67 and discussed the potential of Multi-storey Suspension Structures; David Hicks of London who, with superb slides and recorded music, described the Berber Culture of the High Atlas Mountains; James Lotz of Ottawa, who spoke on the Development of Canada's Northland; and Aldo Van Eyck of Holland, who delivered a highly perceptive and personal interpretation of architecture based on his favourite theme "The Threshold."

In March we were hosts to the Board of Architectural Education of the Commonwealth Association of Architects, and we are grateful to the Acting President and Mrs. Sword for arranging a reception for the visitors at No. 93 Highland Avenue. Included in the party were Sir Robert H. Matthew, President of the CAA; Sir Hugh

Wilson, Chairman of the Board; Mrs. Elizabeth Layton, Under-Secretary of the Board of Architectural Education of the RIBA; Mr. Max Collard of Australia; Mr. M. O. Onafowokan of Nigeria; Mr. Zahir-ud-Deen of Pakistan; Professor R. Gardner Medwin of the Liverpool School of Architecture; Dr. Otto Koenigsberger of the Architectural Association, London; Mr. John Davies of Vancouver; Mr. John C. Parkin of Toronto and Mr. Thomas Colchester, Secretary of the Board. Dr. Howarth of the University of Toronto arranged the Canadian Tour of the CAA, and as a member of the Board participated in meetings at Montreal, Ottawa and Toronto, and subsequently accompanied the Executive of the CAA to meetings in Kingston and Trinidad, where he is advising the University of the West Indies on the establishment of courses in the environmental design disciplines.

The Students

Two of our students, James Jordan and James Fowell, were chosen to represent the Royal Architectural Institute of Canada at the architectural students' conference in Prague arranged by the International Union of Architects, July 1967. Jim Jordan will also represent the "Young Architects" of Canada at the international conference arranged in Mexico City, at the time of the Olympics 1968. James McKeller, a recent honours graduate, was awarded one of two major travelling scholarships offered by the College of Fellows of the Royal Architectural Institute of Canada in 1968.

DEPARTMENT OF ARCHITECTURE

The staff of the Department was augmented by the appointment of Professor Peter Prangnell, formerly of Columbia University, and Professor Barton Myers of the University of Pennsylvania. Professor Prangnell took charge of the first year and co-ordinated the work of the three junior years in the five-year programme; Professor Myers worked mainly in the Graduate Design Studio with Professors Diamond and Benjamin.

Staff Activities

Professor Andrews has been appointed architect for the proposed new building for the Harvard Graduate School of Design, a singular distinction for a non-American living in Canada. Professor Andrews spoke of his work to the Harvard Club, New York, the Harvard Graduate School of Design, and the chapter of the American Institute of Architects at Miami where he is designing a transportation terminal.

Professor Acland, on leave of absence to complete his book on Romanesque and Gothic Vaulting, lectured at the Maltwood Museum.

Professor Diamond obtained a substantial grant from CMHC through the Centre for Urban and Community Studies to examine the density, distribution and cost of housing in urban centres. In the summer of 1967 he attended the Ekistics Session in Athens, and subsequently spoke on graduate work in architecture at the University of Natal.

As a Canadian delegate to the International Union of Architects Congress Dr. Howarth went to Prague in July 1967; he gave a paper and presided over a working party on "Man and the Landscape." On June 11, 1968, he gave the Memorial Lecture at the RIBA in London to mark the 100th anniversary of the birth of Charles Rennie Mackintosh, one of the most notable pioneers of modern architecture; he lectured also at Edinburgh University and the University of Strathclyde. During the year Dr. Howarth spoke at McMaster University; The Art Gallery, Hamilton; Ball State University, Indiana; and delivered a paper to the Royal Society of Canada in Ottawa.

Professor Kent was one of four international speakers at the Federal Department of Industry Conferences on Modular Co-ordination for senior management in the building industry. The conferences were held consecutively at six centres in Canada.

Professor Lee was appointed architectural Consultant to the Ontario Department of Social and Family Services; he read a paper on masonry-bearing wall construction for multi-storey buildings to the Ontario Concrete Conference and addressed the Concrete Block Association, and the Quebec Regional Meeting of the National Concrete Association.

Other members of staff participated in a wide range of professional activities and we should note especially, perhaps, that Mr. Blakeway Miller, who assisted in the Design Studios, was awarded a Massey Medal for Stephen House for Upper Canada College at Norval.

Visitors

The following design critics or special instructors visited the department during the session: Raymond Affleck, Montreal; George Baird, Toronto; Edward Baum, Cambridge, Massachusetts; Donald Buttress, University of Florida; Professor Melvin Charney, Professor in Charge of Graduate Design Programme, McGill University; Herman Hertzberger, Amsterdam; James Langford, Ottawa; Professor R. Lifchetz, Columbia University; Michael McKinnell, of Boston and Harvard; Professor Charles Stifter, Harvard; and R. S. Wurman, Philadelphia.

DEPARTMENT OF URBAN AND REGIONAL PLANNING

The Department has been greatly assisted by the return of Professor A. Waterhouse from the Technical University of West Berlin where he has been completing the requirements for a doctorate in planning, and by the arrival of Professor J. Hitchcock from the Department of City Planning, University of North Carolina. This new strength has enabled us to develop in the areas of human responses to the environment, urbanism and methodology.

The Graduate Department has been further strengthened by the cross-appointment of Professor J. B. Milner of the Faculty of Law, who has long been associated with the teaching of planning in the University; and Professor R. M. Soberman of the Department of Civil Engineering, who has also been teaching in planning for a number of years. This now means that at the graduate level the Department is able to draw on eight full-time members of the University staff. There are, in addition, five part-time teachers.

In 1967-68 students held a total of 12 fellowships and scholarships.

During the year projects were undertaken in Oakville, County of Halton, and the Sudbury area. Student research included programmes dealing with the Toronto Region, Cobalt, the City of Toronto and Metropolitan Toronto.

It is anticipated that the year 1968-69 will see the Department nearing its full capacity of M.Sc. (PL) students within the present curriculum and staff arrangements. It is also hoped that further steps will be made toward setting up a Ph.D. programme in Urban and Regional Planning.

Staff Activities

Mr. H. Blumenfeld received the degree of Doctor of Architecture and Urbanism (*honoris causa*) from the University of Montreal. He also published a collection of essays and writings entitled *The Modern Metropolis*.

Dr. A. J. Dakin has continued his research project evaluating Metro Toronto planning which is sponsored by СМНС.

Professor A. P. C. Adamson concluded his term as Chairman of the Advisory Committee on Design of the National Capital Commission. He is a member of the Province of Ontario Council of Arts.

Dr. E. Mattyasovszky has continued research on physical and ecological criteria for regional recreation planning that is sponsored by the Canadian Council on Urban and Regional Research.

Dr. G. Hodge has been conducting research into the scope of rural non-farm poverty in Canada, the Toronto urban field, and the pattern of industrial location in Southern Ontario.

Professor J. Hitchcock has continued his PH.D. research into activity patterns in urban areas as part of a larger programme being carried out in the University of North Carolina.

Professor A. Waterhouse has continued his doctoral research dealing with human responses to the environment.

Mr. J. Paris has been doing research on non-farm poverty, industrial location and on methods of comparison for regional growth rates.

DEPARTMENT OF LANDSCAPE ARCHITECTURE

The newly formed Department of Landscape Architecture is growing steadily. Though the Bachelor of Landscape Architecture course has been offered at this University for only three years, and we shall not graduate our first class until the spring of 1969, the number of applicants for the course is now quite large. We expect to admit on selection fifteen students into the first year programme for the session 1968-69. To accommodate this growth the Department has had to expand its staff, which now includes four full-time and two part-time members. Emil van der Meulen, formerly of the National Capital Commission in Ottawa, was appointed Assistant Professor, and we have arranged the cross-appointment with York University of Professor Alex Murray, who contributes a course on history.

In the interests of encouraging a free exchange of questions and ideas between the schools of landscape architecture and practising professionals, a seminar on the subject "The Education of the Landscape Architect" was held at the Department in March 1968. A number of professionals and educators from across Canada attended.

Staff Activities

Professor R. Strong served as a visiting critic at Ohio State University in November 1967 and also at the University of Massachusetts, Amherst, in April 1968. He participated in the National Council for Instruction in Landscape Architecture held in Niagara Falls in June 1968, and gave a paper at the Stratford Seminar on Civic Design.

Professor Michael Hough served as a visiting critic at Rhode Island School of Design in October 1967, and again in April 1968, and also at North Carolina State University School of Design in December 1967. He was appointed Chairman of the Niagara Escarpment Committee, and was responsible for organizing a conference held in March 1968. He served as a reporter at the International Federation of Landscape Architects assembly in Montreal, June 1968, and visited northern Canada in July 1967, on a privately sponsored research project.

Professor Emil van der Meulen was appointed Canadian delegate to the International Federation of Landscape Architects and in this capacity he represented Canada at the American Federation of Landscape Architects Congress held in Montreal in June 1968. He is editor of the new quarterly magazine *Place* published privately by a non-profit organization under the auspices of the Canadian Society of Landscape Architects. He was commissioned by the National Capital Commission to do the limestone garden for Governor-General Michener's residence, Rideau Hall, Ottawa, in May 1968.

Visitors

Grady Clay, Editor of *Landscape Architect*, Louisville, Kentucky; John Lanzius, Vancouver; Professor Harry Porter, University of Michigan; J. B. Jackson, Editor of *Landscape*, Santa Fe, New Mexico; Professor Alex E. Rattray, Chairman of the Department of Landscape Architecture at Rhode Island School of Design.

We are greatly indebted to those members of our alumni and of the professions who contributed to our educational programmes during the year. Our University colleagues from other disciplines who continue to assist us with lectures, seminars, and laboratory courses deserve our special thanks.

THOMAS HOWARTH

THE DIRECTOR OF THE SCHOOL OF PHYSICAL AND HEALTH EDUCATION

A President's Advisory Committee was appointed in November 1965 under the Chairmanship of Dean Winegard to consider the future development of the School of Physical and Health Education, including its relationship to the Men's and Women's Athletic Associations, and the Required Program. The Committee recommended that a full-time Director be appointed as soon as possible, and on January 1, 1968, the former part-time Director, Dr. J. H. Ebbs, resumed his appointment on a full-time basis.

Mr. J. H. Sword acted as Director until July 1967, when this responsibility was taken over by Dr. J. D. Hamilton, Vice-President (Health Sciences). The administration of the School was carried on and the quality of teaching maintained by loyal staff in spite of the loss of several senior members, particularly Miss Zerada Slack and Miss Dorothy Jackson.

The recommendation that there be administrative separation of the School from the existing Departments of Athletics and Physical Education was brought about immediately by housing the offices of the School at 49 St. George Street. The staff members were divided into those with major interests in the work of the School, and those who wish to continue in Athletics with part-time cross-appointments. New staff members are being appointed to fill vacancies caused by previous depletions. Additional staff experienced in research and graduate work are now being sought in order to implement the recommendation of the Winegard Report that a graduate programme and research should be established. It is hoped that new facilities for the School will be forthcoming in the near future.

The new four-year course has continued in operation with an increasing number of students. The recommendation that there be a major revision in the undergraduate curriculum has proceeded satisfactorily and will go into effect in the new academic year with some change in course content. More courses will be offered to men and women in the same sessions and academic credit for the attainment of skills in applied physical education will be abolished.

Courses are being designed for graduates of the School, and it is expected that the development of this programme will extend to other University graduates in the near future. The Alumni Association is giving valuable assistance in this development. The Undergraduate Association is co-operating in the affairs of the School by appointing class representatives to an informal curriculum study committee with the Director and members of the staff. The Director and members of the staff are assisting the undergraduate executive in the administration of student affairs.

The loyalty of the alumni and the undergraduate body is very much appreciated. The academic record of the students is increasing each year, as exhibited by the fact that of a class of 70 in the final year, all graduated without failure or condition, while 26 per cent obtained first class honours. With a limited enrolment, first year

students with high scholastic attainment in secondary school education are being enrolled. This should ensure a student group capable of exploring and absorbing some of the vast amount of new knowledge in health and physical activity.

J. H. EBBS

THE DIRECTOR OF THE SCHOOL OF SOCIAL WORK

In response to the request that divisional reports be reduced in volume, this accounting will be somewhat condensed in comparison with previous years. No mention will be made of scholarly publication, or of research production, and reference to community and professional service activities will be sharply restricted. Nor will interpretive comment be made on significant statistical information appearing elsewhere in the *President's Report*.

One of the objectives kept in mind in preparing the Annual Report of the Director, over the past sixteen years, has been to provide both a comprehensive and detailed documentation of the School's operations in order to build up a solid base for later, historical review. Happily, under the competent and diligent supervision of the School's Records Secretary, Miss Dorothy Ross, no set of minutes, no important memorandum, no statistical analysis, no record of any significance whatsoever escapes her ingenious filing system. Whatever may be omitted in the Director's reports can most assuredly be found in the archives of the School.

If last year the emphasis was on quality of teaching, the current year under review saw this preoccupation extended to quality of learning. At the Opening Assembly attention was directed to two mimeographed documents, one by the Director, *A Community of Learning*, and one by Mr. Foster Vernon of the Ontario Department of Education, *The Learning Environment*. These were distributed later to members of the teaching staff and the Executive of the Students' Association. The genuinely collaborative character of the teaching-learning situation was symbolized, in part, by the fact that those who took part in presentation at the Opening Assembly included the President of the Student Association, the President of the Alumni Association, the Provost of the University and the Director of the School.

As the result of a systematic and rigorous evaluation of the organization and administration of the School and recommendations adopted by the teaching staff of the School in June 1967, significant innovation has characterized the administrative structure of the School during the current year. The main reasons for undertaking the review included: a feeling that many, if not most, faculty members were carrying heavy committee loads; that considerable committee time was consumed by administrative detail; that some committee work was not productive; that too much faculty time was used in "organizational housekeeping" to the limitation of time for teaching preparation and scholarly study; that many faculty meetings were lengthy and discursive; that the full faculty often repeated committee analyses of problems; that information and problem-exploration overshadowed decision-making.

Four objectives were agreed upon: (1) to utilize the time and energy of faculty members more productively, while continuing appropriate involvement; (2) to differentiate more clearly between policy determination and administrative tasks and to clarify administrative responsibilities and improve co-ordination; (3) to increase the productivity of faculty committees and faculty meetings; and (4) to provide for appropriate involvement of students in School planning.

The plan adopted greatly reduced the number of faculty committees. With the

exception of the Curriculum Development and Planning Committee, chaired by the Director, all continuing committees were incorporated into two Divisions, chaired by the two Senior Co-ordinators: Division I – Advanced Studies, Research, Library and Extension; and Division II – M.S.W. Studies, Admissions, Field Instruction, Faculty-Student Relationships.

The last term "Faculty-Student Relationships" replaced the designation previously used for the faculty liaison person on "Student Affairs." This entire annual report might well have been devoted to a detailed accounting of the School's total experience this past year in the area of student-faculty collaboration. A major change was made in the composition of the Curriculum Development and Planning Committee. Its membership consisted of eight faculty members and eight students.

Supplementing the Division Committees and the Curriculum Development and Planning Committee which reported to the faculty as a whole and which acted, within prescribed areas, for the faculty and the School, expanded use was made of time-limited, specific, task-oriented groups. Teaching groups and *ad hoc* committees to deal with problems of particular students were continued. A revised format for faculty agenda and discussion procedure was adopted: (1) information; (2) advice; and (3) decision. All agenda items were placed under one of these three headings.

In line with an agreement made when the new plan was introduced a special task force was named to undertake an assessment of the new administration arrangements toward the close of the year. An elaborate questionnaire was developed and distributed to members of the teaching staff and formal consultations were held with student representatives. A summary of findings was presented at the annual Faculty Planning Conference, held this year over a two-day period at Geneva Park, Lake Couchiching. Following the Planning Conference specific recommendations were formulated for consideration by the faculty at its last regular meeting in June. The eight recommendations, which were adopted unanimously, together with part of the preamble, are reproduced below because they reflect so clearly not only the structure but the spirit of the whole operation.

"By way of preamble, it may be observed that there seems to be substantial evidence of support within the faculty of the School's aim to achieve a balance between efficiency and effectiveness in maximizing participation in decision-making and in enabling each member of the staff to contribute qualitatively in terms of differential and distinctive capabilities. The School has been committed to a philosophy of 'participatory democracy' over many years, and equally to continuing evaluation, feedback and improved administrative arrangements.

"While this present report would appear to lay particular emphasis on formal structures and procedures, those associated with the preparation of this document wish to stress equally the essential importance, indeed the indispensability, of informal structures and informal communication within the School. Individual consultations in the hallway, brief conferences at coffee breaks, unscheduled clearance by telephone or in small clusters of colleagues represent effective and economical patterns in the over-all administration of the School. The following recommendations are offered in the hope that the faculty will approve them so that they may be implemented to go into effect with the beginning of the new academic year July 1, 1968:

"1. It is recommended that there be two committees to deal with curriculum matters, one concentrating on the Current Curriculum, the other on Long-Range Curriculum Development.

"2. It is recommended that the Director co-ordinate the activities of the two curriculum committees. [Subsequently these became a new Division within the administrative structure.]

"3. It is recommended that criteria be developed to guide the Director in determining the exact composition of the two curriculum committees, both in terms of faculty and student participation.

"4. It is recommended that chairmen of Teaching Groups be nominated by their Teaching Group with actual appointments being made by the Director; that

the principle of rotation be followed in such appointments; and that chairmen of Teaching Groups not serve also as co-ordinators.

"5. It is recommended that a Task Force be clearly differentiated from assignments given to individuals; that their terms of reference and tenure be explicitly set forth at the time of their creation; that the establishing of all Task Forces be cleared with the Director to avoid proliferation and the overloading of any given person; that a current chart be maintained by the Administrative Assistant to the Director disclosing total deployment of staff; and that basic information be distributed promptly to all members of the faculty each time a new Task Force is created.

"6. It is recommended that a comprehensive Table of Organization be developed and distributed to the entire teaching staff of the School early in September and that this be up-dated when changes of importance require such.

"7. It is recommended that in the development of the agenda for Faculty Meetings a new sequence of categories be adopted: (a) for decision, (b) for advice, (c) for information, and that in regard to the latter, relevance and urgency be the determining considerations for inclusion of any given item. Furthermore, that wherever possible, the information be attached to the agenda to conserve time for discussion.

"8. It is recommended that the Director distribute three Open Letters a year (possibly Summer, Fall and Spring) similar to the one developed and distributed earlier this year, which would be directed to the total relevant School constituency - teaching staff, students, School Council, Board of Social Work Studies, Alumni Executive, Executive of Metro Toronto Branch of the Ontario Association of Professional Social Workers, possibly others to be determined."

The first recommendation, in large measure, was a deliberate response to an understandable view held by students who expressed much greater concern and interest in bringing creative criticism to bear upon the current educational programme than in trying to shape a curriculum for the future. The two streams of curriculum development and planning, however, actually converge in several strategic, innovative undertakings which deserve description in this Report.

Fundamental forces operative in society, more particularly in the functional areas of social development and welfare, some within the profession of social work, some outside, are exerting profound influence on social work education. Early in the year, the Director was invited by the President's Council to indicate what these influences were and how the School was attempting to take them into account in redesigning and refining its overall educational policy and programme. A two-page digest of the presentation made to the President's Council can be consulted to secure details. Suffice it to say that the changes contemplated are as fundamental as the forces giving rise to their development.

Chief reliance is on systematic collaboration and consultation: within the teaching staff, with students, with alumni, with appropriate colleagues in the Council on Social Work Education, the Canadian Association for Education in the Social Services, the Continuing Conference on Education and Training for the Social Services in Ontario, and, of course, colleagues within the University, more particularly members of the Council of the School of Social Work, the Senate's Board of Social Work Studies and those responsible for overall academic leadership including the Provost and the Dean of the School of Graduate Studies.

In the fall the Director invited members of the teaching staff to submit written memoranda suggesting how they thought the curriculum of the School could be improved. The response was substantial. Well over one hundred useful ideas were contributed. Following preliminary exploratory analysis and discussion a second, more rigorous and systematic analysis was completed, yielding several theoretical models. Three sets of issues were then identified. In each case a small task force was named to narrow disagreement and to produce a basis for constructive resolution and recommendation. A genuine, creative and productive process is well under way and will go forward even more vigorously next year.

Two major innovative projects contributed both directly and indirectly to curriculum redevelopment during the year. Documentation available on each is voluminous. The first project represents an ambitious attempt to improve the quality of field instruction by substituting a consortium of teaching centres for single, separate agencies and by focusing on a particular problem, in this instance, physical rehabilitation and mental retardation. Professor Marjory Seeley served as co-ordinator for the project and Dr. John Gandy as research associate. A comprehensive report on the project together with a research evaluation was presented at the Faculty Planning Conference, and later distributed to a large number of persons who had participated in the "experiment." The project is to be continued, intensified and refined in 1968-69.

The second project is concerned with innovation in teaching method, emphasizing cognitive learning and integration of learning in all parts of the curriculum. The project is under the auspices of the Council on Social Work Education. The Toronto School is the only Canadian school of social work involved. In May, eight members of the teaching staff, including the Director, participated in the first project workshop in Puerto Rico along with representatives of the seven other schools, one of which is the University of Puerto Rico School. The co-ordinator for the Toronto School is a doctoral student, Mr. Ormond Stanton. Extensive use will be made of special case material derived from a Juvenile Delinquency Control Project in an inner core area of a large metropolitan city, also of video tape and other audio-visual teaching resources. The Ontario Institute for Studies in Education is co-operating in the area of evaluation. The Laidlaw Foundation and the Welfare Grants Administration of the Department of National Health and Welfare are assisting significantly with the cost of the undertaking.

The highlight of the year was the authorization by the Senate of the University and approval by the Board of Governors of the establishment of a Centre for Research in the Social and Health Services. Over a year of intensive study and discussion preceded this formal action, culminating in a unanimous, favourable recommendation by a special interprofessional and interdisciplinary committee appointed by the Dean of the School of Graduate Studies. In a separate but related action, recommended by the Trustees of the Cassidy Memorial Research Fund, established in 1952, which supported significant research operations involving a combined investment of some \$750,000, the Board of Governors authorized transfer of all assets of the Fund to the new Centre, including a modest revolving publication account. Provision for the appointment of Cassidy Research Visiting Professors is continued. It is expected that the Dean of the School of Graduate Studies will now take the necessary steps to have a Council named to develop policy and to guide the programme of the Centre and to enable the Centre to secure a basic budget and a director.

In presenting the case for the new Centre, the Director of the School of Social Work set out six considerations which he thought basic to the proposal. Because this statement attempts to capture something of the deeper meaning and promise of the whole undertaking, it is reproduced, at this point, to place the Centre in larger context:

"1. During the first fifty years that this University has had a professional programme to prepare students for practice and leadership in the social services, these services in Canada have expanded greatly both in volume and complexity with over-all expenditure increasing from a per capita outlay of \$2.00 in 1914 to \$202.00 in 1964. In 1914 no provincial department existed in Ontario dealing directly with the social services. Current expenditures of the Ontario Department of Social and Family Services exceed \$200,000,000.

"2. Resources for research in the social services in Canada, however, in funds, personnel and facilities, have lagged far behind those for research in other major areas in much the same way that support for the social and behavioral sciences has lagged behind support for the physical and biological sciences.

"3. Three of the most significant and strategic developments to provide a more

systematic and substantial research base for the guidance of social policy and social practice in the social services in Canada include the creation of the Cassidy Memorial Research Fund, 1952; the introduction of studies at the doctoral level, 1951; and the establishment of the Welfare Grants Administration within the Department of National Health and Welfare, 1963.

"4. Government departments at all levels, agencies of many kinds in the voluntary sector and professional associations concerned with or responsible for some aspect of the social services are looking to universities, and to this University in particular because of its resources at the graduate level, to both its staff and its graduates, for consultation, leadership and specialized assistance based upon research competence and productivity.

"5. Increasingly those responsible for the planning, development, administration and assessment of the social services require greater sophistication in the use of theoretical and operational models derived in large part though not exclusively, on the one hand, from the scientific disciplines of psychology, sociology, anthropology, economics, political science, human geography and history, and on the other hand, from the professional disciplines of medicine, public health, law, education, engineering and architecture.

"6. An effective approach to the understanding and handling of problems in the organization and operation of the social services awaits a more deliberate and disciplined articulation between scientific investigation and professional intervention, and the development of new social inventions designed to facilitate interdisciplinary and interprofessional collaboration in a spirit and on a scale beyond anything yet realized."

During the year the School was privileged to have as short-term visiting professors Dr. William Gordon of Washington University and Dr. Robert Chin of Boston University. They contributed helpfully in reviewing the research requirement in the School's curriculum. Dr. Norman Bell of the Department of Sociology participated in a Faculty Seminar concerned with "Intercultural Values in Social Work Education." Four guest lecturers presented papers in the School's "Minds on the Move" series, held this year in Convocation Hall: Dr. Daniel Hill, Director of the Ontario Human Rights Commission; the Hon. John Yaremko, Minister of Social and Family Services for the Province of Ontario; Dr. Franc Joubin, Consulting Geologist and a senior member of the Technical Assistance Administration of the United Nations; and Mr. Kenneth LeM. Carter, Chairman of the Royal Commission on Taxation.

The School Lecture, inaugurated in the spring of 1966-67, was continued with variations in arrangements. Through the year, four mornings were allotted to the exercise, which brought together the entire teaching staff and student body of the School. On each occasion a member of the staff presented a formal lecture which was followed either by a panel discussion of students and faculty or group discussions or both. The faculty members who gave papers were Dr. Benjamin Schlesinger, Dr. Ray Johns, Professor Shulameth Rhinewine and Dr. Francis Bregha. Their presentations were based on current study and research, in two instances related to recent sabbatical leave abroad.

Among items of special interest that should be recorded, however briefly, is the formal visit of the Vice-Chancellor of the University of the West Indies arranged at the invitation of the President on the initiative of the School. Sir Philip Sherlock and five of his senior colleagues flew up from Jamaica and met with their opposite numbers under the chairmanship of Dr. John Hamilton, Vice-President (Health Sciences). The purpose of the consultation, in which two senior officials of the External Aid Office participated, was to review the exchange arrangements between the University of Toronto and the University of the West Indies, more particularly the co-operation that was building up with the School of Social Work at the University of Toronto. Significant consequences have flowed from this consultation and collaborative arrangements have been extended.

In May, while returning from Puerto Rico, the Director, accompanied by

Dr. Benjamin Schlesinger, the School's exchange professor in 1965-66, and Dr. John Gandy, the School's exchange professor for 1968-69, visited Jamaica and met with Professor Margaret Doolan, the School's exchange professor for the current year, and together they conferred with the appropriate representatives of the University of the West Indies. During 1967-68 one faculty member from the University of the West Indies, Miss June Dolly-Besson, and a senior member of the professional staff of the Child Welfare Department in Jamaica, Mrs. Beverley Marsh, were in attendance at the School. During her studies at the School Miss Dolly-Besson, working closely with Dr. Schlesinger, completed the manuscript for a book of indigenous cases which, it is hoped, can be made available for teaching purposes in Jamaica.

A Centennial Project which deserves special mention is the co-operative Alumni-Faculty Conference on Manpower in the Social Services, held under the auspices of the Alumni Association of the School on November 3 at the Park Plaza Hotel in Toronto. Dr. Edward Schwartz of the School of Social Service Administration of the University of Chicago was the principal resource person.

Later in the year, encouraged by the success of the earlier undertaking, the Alumni Association organized a large-scale Consultation on Social Work Education. A packet of study material was prepared and mailed in advance of the consultation to all who registered, including alumni, faculty and students. Some who, because of distance or for some other reason, could not attend the consultation paid their dollar just to receive the packet. The consultation was held in New College on the University campus. The programme consisted of a large, representative and articulate panel with questions from the floor. A wine and cheese party added a further dimension of pleasure to a most enjoyable evening. Speaking of parties, one that should not be overlooked, where apple cider and doughnuts were in abundance, was held to celebrate the reopening of the School's library. Extensive renovation provided 50 per cent more seating space; book stacks were consolidated in a separate area; walls were replastered; new floors were laid; new pictures were placed on the newly painted walls. Appreciation is again expressed to the Assistant Librarian, Mr. Prodrick, and PACAF for their co-operation.

In addition to task forces already referred to in this Report, the following need to be listed to complete the inventory. Each represents a significant assignment within the operations of the School: Policy Statement on Government Support of University Research; School's Role in the Field of Corrections; Review and Reorganization of Field Instruction; Evaluation of Admissions Policy and Procedures; Policy Statement on Confidentiality in Relation to Reporting on Health of Students; Summer Institutes; Orientation of New Faculty; Use of Audio Visual Aids; Policy on Financial Aid to Students; Student Manual. This inventory includes chiefly task force units named by the Director. Some others, not here identified, were created by Divisional Committees.

The Interprofessional Student-Faculty Seminar this year was hosted by the Faculty of Law. Plenary sessions were held in the Edward Johnson Building. Under a representative programme committee, chaired by Professor John Swan, a simulated court session was held involving the case of an emotionally disturbed boy whose parents sought his return from a treatment centre to which the court had previously sent him. Box lunches were provided, followed by discussion groups, and the closing plenary session took the form of a feedback. Dr. Norman Bell served as monitor of the exercise and reviewed the experience in terms of role perception and role performance in an interprofessional setting. Once again the value of this kind of collaboration between different professional divisions of the University was clearly apparent. Subsequent, formal evaluation resulted in decisions to enlarge the project, set the date well in advance for the next meeting (February 13, 1969), assign responsibilities and secure supporting funds to ensure greater effectiveness. The 1968-69 seminar will focus on Strategies of Professional Intervention in Relation to Human Problems of the Inner City.

The leadership role of the School cannot be separated from what normally would be reported under the rubric of community and professional service. Some thirty examples might be cited, but suffice it to allude to a very few items of special significance: the second Management Development Seminar for senior executives of social welfare agencies at L'Esterel; an International Workshop in New York for the International Foundation for Community Development; the inaugural seminar for the Straus Center for Advanced Studies in Human Relations at Rensselaerville, New York, on "Channelling Social Change"; the Canadian Conference on Christian Conscience and Poverty at the University of Montreal; the President's Committee of the Canadian Association of Social Workers, in preparation for a National Delegates Conference; and the Canadian Conference on Social Welfare.

Leadership has not been confined to members of the faculty. Students representing the Student Association participated actively in several student conferences, in Ann Arbor, St. Louis, and Montreal, and as a result the Student Association of the University of Toronto School of Social Work has taken on responsibility for organizing and managing a Canada-wide Conference for Students from Schools of Social Work, which will be held in Toronto in February 1969.

Six new members of the teaching staff were added during the year, including Dr. Bessie Touzel, the School's most distinguished alumnus, for whom a Rendezvous Dinner was held at the Faculty Club to mark her return from an important two-year UNICEF assignment in Tanzania. During the year Dr. Lappin was on sabbatical leave in Israel. Two members of the staff resigned at the close of the year, Professor Seeley to take up new administrative duties at Trent University and Mr. Gordon McLellan to join the training unit in the Ontario Department of Social and Family Services. An attempt was made by their colleagues to thank them for their special contribution to the School and to wish them all the best at a recognition luncheon toward the end of the School year.

The Centennial Medal was awarded to three senior members of the teaching staff: Dr. Govan, Dr. Rose, and the Director. In Boston, Dr. Ray Johns, Cassidy Research Visiting Professor, was honoured by the establishing of the Ray Johns Youth Award by the Youth Activities Commission of Greater Boston. Dr. Touzel was made an Honorary Life Member of the Canadian Welfare Council by action of its Board of Governors. Dr. Joseph Laycock was elected President of the Ontario Association of Professional Social Workers, and the Director was appointed to the new Advisory Committee on Legal Aid by the Attorney-General of Ontario. Again, the listing of recognitions and honours has been severely and arbitrarily curtailed.

To conclude this Report, let me express appreciation to the many colleagues and associates who have eased the burden and contributed such magnificent co-operation to the School during the year just completed. Once again I single out Mrs. Joan Godfrey, the Secretary of the School, for particular commendation.

CHARLES E. HENDRY

THE DIRECTOR OF THE SCHOOL OF NURSING

A number of encouraging developments have taken place that mark the progress being made in the School of Nursing. Enrolment in the baccalaureate programmes reached a new high with 247 students in the Basic Course and 225 in the Course for Graduates of Diploma Schools of Nursing. In the latter course, 99 students enrolled full-time in the School, and 126 enrolled part-time in the Division of

Extension. Fifty students enrolled in the certificate course in public health nursing. Special programmes were arranged for seven graduate nurses who were nationals of Nigeria, Mauritius, Thailand, Trinidad, Malaysia or Ceylon. These students were sponsored by the World Health Organization or by the Colombo Plan, and were seeking further preparation for senior positions in their own countries. Three short courses were offered to a total of 45 students, two courses at the Clarke Institute of Psychiatry and one at the School in co-operation with the Division of Extension. The objective of these courses was to improve the knowledge and skills of graduate nurses in special fields including psychiatric nursing and the rehabilitation aspects of nursing.

In each of the above programmes clinical experience was arranged as a part of the course. The contribution of the hospitals and other health and social agencies that provided resources for this teaching is gratefully acknowledged. The continued interest and support of the staff of the agencies is deeply appreciated.

The School received a grant of \$178,000 from the Kellogg Foundation for the five-year period 1968 to 1973, to be used in the development of graduate work in nursing. This is urgently needed as there are only four master's degree courses in Canada (one in Ontario) and there are many senior positions for which this level of preparation is required. At present Canadian nurses tend to go to the United States for graduate work, where many of them remain following the completion of their studies. Frequently, too, the programmes offered may not meet the needs of the Canadian students. The School is interested in developing a programme for nurses who desire preparation for teaching or consultation in special clinical areas, and the advancement of knowledge through investigation of nursing problems.

Another aspect of nursing education in which the School is interested is continuing education, which is needed to enable nurses to keep abreast of the advances of knowledge in the health field and to bring new developments to the community. A National Health Grant of \$23,000 was given to the School to initiate a continuing education programme. This programme will be developed in co-operation with the Division of Extension. The first step will be an investigation of the programmes now being offered on this continent to assess and define the priority of needs, and to develop policies to guide the development of the programme. An important aspect will be the evaluation of the effect of the programme on nursing service, administration and teaching.

In view of the larger enrolment in the School and the plans for expansion of the work, additional staff has been secured for the library and changes made to increase its efficiency. The holdings now number over 6,000 volumes. The School currently subscribes to 196 periodicals and has approximately 3,000 titles in the pamphlet collection.

During the past two years a study of the curriculum of the Basic Course has been undertaken. This has resulted in a number of recommendations for revision, some of which will be implemented next year. The major change will be in the approach to the teaching of nursing and the arrangement of the nursing subjects. Nursing will be presented as a "core" subject in each of the four years. Students will have experience in the care of patients and families in various settings and in all stages of health and illness. Most of the clinical experience will be given concurrently, thus making it possible to decrease the amount of clinical work formerly arranged during the spring and summer months. In the fourth year the students will concentrate on nursing and have an opportunity for independent study and experiences which will be planned on an individual basis. Teaching in the clinical areas will be strengthened by the addition of full-time instructors who will assist senior staff with this aspect of the course.

The expansion of the health services and the increase in the number of personnel who contribute to these services have resulted in a need for clarification of the roles and relationships of the members of the health team and ways of organizing the health services to assure a high quality of care. The staff of the School are interested in

studies to advance the knowledge of nursing, and to clarify the roles and relationships of the nursing members of the team. A project commenced a year ago by Professor Jones has been expanded and extended. This is a study of a method of relating public health nursing service to the general practice of medicine. A second project initiated by Professor Allemang received the support of the Ontario Hospital Services Commission. A special unit has been established at Sunnybrook Hospital to study a new type of organization and system for the provision of nursing care.

The World Health Organization requested the services of two members of the faculty to contribute to international work. Professor Jean Wilson was assigned to Chandigarh, India, for three months as a consultant to a nursing education project at the Post-Graduate Institute for Medical Education and Research. Miss Wilson assisted with the teaching and advised the staff with regard to the development of the College of Nursing. Professor Riddell served for two months in Lebanon as a nursing consultant. She studied the organization of nursing in that country and made recommendations as to regulations for the examination and registration of nurses for practice. Professor Dolphin, by invitation, conducted an institute at Dalhousie University on leadership and the quality of nursing care.

Nursing education was first established in the University of Toronto in 1920, at the time when the Rockefeller Foundation was active in the health field. The work in Toronto was considered to be in advance of nursing education in other countries. Of the 476 fellowships awarded to nurses by the Foundation between 1917 and 1951, 187 fellows were sent to Toronto. The interest of the Rockefeller Foundation had a marked influence on the international reputation of the School. Nearly 11 per cent of the alumni are nationals of countries other than Canada. As the International Council of Nurses will meet in Montreal in June 1969, the School is making plans to hold a conference for visitors to the convention, many of whom will be international alumni of the School.

We have been fortunate in securing a number of new faculty members to assist in the expansion of the work of the School. Among these are Dr. Margaret Cahoon, Miss Beverly Mitchell, and Miss Norma Dick, all of whom come with a broad background of preparation and experience. We regret that Mrs. Patricia Adamson is resigning to take up residence in Montreal. The contribution she has made to the teaching of psychiatric nursing and the development of the resources of Sunnybrook Hospital for student experience in this field is greatly appreciated.

In this period of rapid expansion in the health services, new demands are being made upon nurses, and upon university schools of nursing. The School is developing its programmes to keep pace with the advances in the field. The interest and support of the Acting President, the Vice-President (Health Sciences), and the members of the Council of the School at this time of growth and expansion are deeply appreciated.

HELEN M. CARPENTER

THE DIRECTOR OF THE SCHOOL OF HYGIENE

In the session 1967-68, the time available to the senior staff for administrative duties was fully occupied in answering numerous requests from both the University and elsewhere for information about the responsibilities and role of the School and its six academic departments in undergraduate and graduate teaching and in research. Thus, the School staff collaborated with members of the management consultant

firm of Kates, Peat, Marwick & Co. who are preparing a report on the objectives, responsibilities, organization, and administrative relationships of the various units in the Health Sciences group. This review, requested by the Board of Governors, was only partly completed in 1967-68; much remains to be done. The report of this firm and other consultants may lead to recommendations affecting the future relationship of the School of Hygiene to other members of the Health Sciences group and to the Faculty of Arts and Science. Requests from outside the University family came from the Science Secretariat, the Medical Research Council, the National Research Council, the Canadian and American Public Health Associations, and the Association of Schools of Public Health of North America, among others.

In discussing our replies to these bodies it was agreed by the senior staff that our primary responsibility is graduate teaching and research in Public Health, defined as "the science of promotion, protection, and restoration of health by organized community action," although the broad nature of the present responsibilities of the School was emphasized. As a school of public health we try to meet the requirements of Canada for "front-line" public health professionals, especially medical, dental, and veterinary health officers, hospital and other health administrators, industrial physicians and scientists, nutritionists, microbiologists, epidemiologists, and health statisticians. Candidates are prepared for such positions in the eight postgraduate diploma programmes administered by the School.

The School also fills the need for persons with more specialized skills in the public health sciences, for example, university teachers, research workers, and specialists in health administration, epidemiology and statistics, environmental physiology, nutrition, microbiology and parasitology.

It is also the responsibility of the School of Hygiene to serve as the administrative base for six independent University departments, and to encourage teaching, research, and other scholarly pursuits in their disciplines. These interests include subjects not closely related to public health as defined above. For example, the Department of Microbiology, which is the major of these six departments, teaches and conducts research in basic as well as applied medical microbiology. This department also teaches undergraduates in the Faculty of Arts and Science and graduate degree students who may not enter a health science profession. An important interest of our Department of Parasitology is the study of parasitic diseases of Ontario wildlife, especially birds, fishes and mammals. As a further example, the Department of Epidemiology and Biometrics is an important centre for teaching statistics to students in the biological sciences, without specific application to health sciences.

Up to date the School of Hygiene has been able to fulfil its responsibility for producing front-line public health workers, specialists and research workers in public health, university teachers, as well as for teaching undergraduates, and the necessary staff has been provided by the University. Most staff members of the School believe that the applied and basic aspects of our programme complement one another, to the benefit of staff and students, and they do not want the School to be a technical college with a narrow "job-oriented" training mission. Certainly our participation in the work of the University as a whole is emphasized by this session's figures for attendance: graduate diploma, 107; graduate degree, 139; undergraduates in Arts and Science, 251; undergraduates in Medicine, 527; undergraduates in other Health Sciences, 837.

In these days of relatively scarce resources, it must be admitted that the steadily rising enrolment presents problems, at present unsolved, which may force reconsideration of our traditional role. Thus, there is not enough space for staff and students, as we have only 45,000 square feet, much of which is in the same physical condition as it was when built thirty to forty years ago. Our physical facilities contrast very poorly with those now provided in many other science departments of the University, more especially our close neighbour, the new Medical Sciences building. Further, the budgetary arrangements hitherto in force have not recognized the cost of our extensive undergraduate teaching programmes, especially in laboratory subjects.

The Acting President has appointed an Advisory Committee on Microbiology under the Chairmanship of Vice-President J. D. Hamilton to review and make recommendations on the teaching of Microbiology in the University of Toronto as a whole. Microbiologists are employed not only in the School of Hygiene, but in the faculties of Medicine, Dentistry, and Applied Science and Engineering, Scarborough College, the Connaught Medical Research Laboratories, all the larger teaching hospitals, and certain other health institutions, yet there is almost no co-ordination of their work. Such internal co-ordination is a prerequisite to the interuniversity co-ordination recently urged by the Presidents of the Universities of Ontario.

Another University committee is concerned with the teaching of Preventive Medicine to the undergraduates in the Faculty of Medicine now carried out by members of several departments of the School, under the direction of Dr. H. S. Gear. This effort, financed solely from the budget of the School, urgently requires increased support with the imminent enrolment of larger classes of medical students.

The major undergraduate teaching programmes of the School have continued, despite the difficulties of space and budget already mentioned. New or improved courses have been offered in the faculties of Arts and Science, Medicine and Pharmacy, and the School of Nursing. The departments of Microbiology and Health Administration have collaborated with the Division of University Extension in offering work in the General Course in Science and the Bachelor of Science in Nursing.

Some of the other divisions in the Health Sciences are also short of space and facilities, and there is much common ground in teaching programmes and in research interests. It may therefore be desirable to consider an administrative regrouping and rehousing with the purpose of serving the University and the community more effectively, as for example by the establishment of a new Faculty in the Health Sciences group which might incorporate the present Faculty of Food Sciences and the schools of Hygiene, Nursing, and Physical and Health Education. Together they could achieve much more than they do in separation.

At the graduate level we introduced a new full-time programme to meet the needs for advanced training in Health Administration of persons holding or expected to hold senior responsible administrative or academic posts overseas. We enrolled a physician who will occupy the chief administrative position in Trinidad, and a professor of preventive medicine from a medical school in India. This new programme will extend over a full academic year but will not lead to a diploma, because students will be expected to hold a postgraduate qualification in health science, such as the Diploma in Public Health.

An interesting development during the year was the establishment of a close relationship with the Department of Social and Preventive Medicine, University of the West Indies. A delegation of senior officials, including the Vice-Chancellor and the Dean of Medicine, visited the University of Toronto in the fall of 1967. Later, we welcomed Dr. K. L. Standard, Head of the Department of Social and Preventive Medicine, for a week of teaching and discussions. We have also received funds from the External Aid Office to send to Jamaica, on secondment for two years, Dr. G. Goldthorpe, one of our younger teachers in Public Health.

Our School, the only one in this country teaching in English, has a special responsibility for the continuing education of Canadian public health workers, whether generalists or specialists. The time has come to appoint a staff member to give full-time direction to such a programme, for with our present resources we cannot do more than a fraction of what is required. In May and June the following graduate-level tutorial-type courses, each of one month's duration, were offered: Electron Microscopy with Particular Reference to Microbiology, Biostatistics, and Data Processing for the Health Sciences. The total attendance was over 20, and the students came from several Canadian universities, research institutions, and health agencies.

Two other activities in continuing education are worthy of mention. Thus, the 11th Annual Refresher Course in Public Health and Preventive Medicine was attended by 175 Canadian public health workers from almost all provinces. We have

now begun to recognize our responsibility to members of the various technical professions allied to public health by offering two courses to audiometric technicians from public and occupational health clinics. The courses, attended by 25 persons, were mounted by our Department of Physiological Hygiene in collaboration with the Division of University Extension. We should do much more in this direction, especially for health inspectors who play such a vital part in public health work.

Earlier in this report, I referred to the possibility of changes in the teaching responsibilities, especially at the undergraduate level, of the School of Hygiene, arising out of the survey being made of the Health Sciences divisions. There may also be a major change at the level of the School of Graduate Studies. For the last five years the individual departments of the School have served as a composite Graduate Department of Hygiene in the School of Graduate Studies, and offer programmes leading to the M.Sc. and Ph.D. degrees, based mainly on research. The administrative control of the eight graduate diploma programmes which enrol about 100 students a year is, however, vested in the Council of the School of Hygiene. Our Council has now requested the School of Graduate Studies to offer three new professional master's degrees which might in due course replace almost all of the present diplomas. A majority of our staff accepts that the diploma pattern of postgraduate education, based on that offered in the United Kingdom, is now outmoded and little used in Canada outside of Toronto or in the United States. We believe that our public health students should be able to earn a professional master's degree, for the quality of our courses and staff appears to be fully up to the level of other professional schools awarding a degree instead of a diploma.

One of the proposed new degrees is the Master of Public Health (M.P.H.) to be offered to physicians, dentists, and veterinarians; another is the Master of Health Administration, with one stream in Hospital Administration and a new stream in Medical Care Administration; the third proposed degree would be the Master of Public Health Sciences.

This far-reaching proposal is still under consideration by the School of Graduate Studies. If the proposals, or some of them, are approved, the academic control of many of the students who now register in the School of Hygiene will technically pass to the School of Graduate Studies. This would bring the pattern of graduate professional education for Public Health in line with the practice in other professional fields such as Social Work, Business Administration, Engineering, Pharmacy, Architecture and Forestry.

We record with regret the resignation of Dr. Douglas Piercey, Associate Professor of Hospital Administration, who for fifteen years played a major role in developing our course in Hospital Administration. Dr. Margaret C. Cahoon will transfer to the School of Nursing on July 1, 1968, to help develop a master's programme in nursing, and we wish her and the School of Nursing every success in this venture. She will continue to help us in her special field of Health Education.

Staff members and alumni of the School of Hygiene may be excused if they express some reservations about the necessity for the administrative changes mentioned as possibilities in this report, for the School is proud of the record achieved under the present administrative arrangements which have evolved over forty years. The 1,600 graduates have made their mark in the health services of all provinces of Canada, in several federal departments and agencies, in the armed forces, in international agencies, in hospitals, in research institutions, and in university teaching positions. The School has made a notable contribution to the health services and to universities in many overseas countries, especially in the Caribbean and Southeast Asia. Thousands of undergraduates have received instruction in public health subjects.

The health of the public is now a matter of general concern and is politically topical, for it is widely recognized that better techniques for delivering health care to the mass of the people, urban or rural, rich or poor, must be found, and the time lag between discovery and application of advances must be shortened. The mere training of more doctors and dentists is not enough to achieve these objectives. Many

of them will specialize and most will practise in the cities. Professional aides in medicine and dentistry will have to be used increasingly and given more responsibility.

A high degree of administrative talent is required in the health services in Canada to deploy skilled professional staff to the best advantage and to devise means of extending their "outreach" through assistants. There is a need for a strong independent School of Public Health in Canada interested in such matters, staffed by experts in health sciences and administration, offering studies at the graduate degree level and conducting research. The School of Hygiene, University of Toronto, can continue to fulfil this role, but failure to provide it with an adequate physical plant, or to update its degree structure, will mean that the role will be taken over by other universities.

A. J. RHODES

THE DIRECTOR OF THE SCHOOL OF BUSINESS

The demand for graduate business education in Canada continues to grow at an accelerating rate. Although new graduate business schools have been opened every year, enrolment continues to press upon facilities and qualified staff, so that neither is ever quite adequate to meet the need. Enrolment in the School of Business in the 1967-68 session proved to be no exception. Full-time enrolment increased 40 per cent from 138 to 194, and part-time enrolment rose by 26 per cent from 160 to 202.

The continuing shortage of qualified staff in Canadian business schools led to the proposal by the School of Business to the School of Graduate Studies that a PH.D. programme be started. The programme was approved by the School of Graduate Studies and the Ontario Council on Graduate Studies. If the Senate approves the proposal, it is expected that the first doctoral candidates will be enrolled in September 1969.

During the year, over 700 business men and government leaders attended the eight executive programmes offered by the School. These programmes ranged from one-day conferences to a two-week seminar. The most stimulating of the conferences was on "Change and the Dynamic Organization," which was offered jointly with the Faculty of Applied Science and Engineering. Distinguished speakers included: Dr. O. M. Solandt, Dr. Harper North, Donald J. Smalter, William Wendel, Vernon Marquez and Dr. Warren Bennis. The conference was generously supported by Acres Limited, whose president, Norman Simpson, has a keen interest in the problems of change.

The annual Business Outlook conference attracted 250 executives. Under the able chairmanship of A. J. Little, Clarkson, Gordon Company, the following business leaders gave their views of the economic prospects for 1968: R. M. MacIntosh, Bank of Nova Scotia; G. E. Neilson, Husky Oil Canada Ltd.; D. G. Kettering, Hawker Siddeley Canada, Ltd.; G. T. N. Woodrooffe, Falconbridge Nickel Mines Ltd.; P. D. Dalton, Canadian Construction Association; R. E. Sheen, Hudson's Bay Company; J. S. Maxwell, Canadian International Paper Co.; D. I. Johnston, CAE Industries Ltd.; E. H. Bleckwell, Du Pont of Canada Ltd.; and R. M. Barford, General Steel Wares Ltd.

The School continued and expanded its general seminar series for the students. Among the distinguished visitors were: Dr. William C. Hood, Bank of Canada; Dr. Daniel Teichroew, Case-Western Reserve University; Dr. Gordon Donaldson, Harvard University; and Dean George Schultz, University of Chicago. It is hoped that funds will be made available to enable the School to continue the series.

We record with regret the resignation of Professor John Sarjeant, who joined a consulting firm. Professor Sarjeant was the mainspring in the development of computer education and information systems at the School and in the shaping of the character of the executive programmes.

The dramatic changes in enrolment and in staff in the past few years have placed serious strains on the School. I am grateful to the new members of the staff who have adjusted quickly to the many demands made upon them and who have participated actively in the continuous development of the School.

O. W. MAIN

THE DIRECTOR OF THE DIVISION OF UNIVERSITY EXTENSION

Although total registration in the Division has increased again, as it has done since 1953-54, it has been a year of consolidation along the lines of development and the efforts of the past few years. Also, apart from academic considerations, the position of students in the varied extension programme is improving: courses that are a necessity to people in business have been provided; progress has been made with short, full-time courses, particularly in business and engineering areas; three courses have been taken to the students' places of work, with 50 per cent of the instruction being given in working hours; meetings between instructors and members of the Division have taken place in several sections and have uncovered questions of mutual concern; also, through the combined efforts of the Division, teaching departments and the Library, the "Extension Reserve" collection for degree-course students has had a complete review, as the basis for correction of its deficiencies. Cross-appointments continue to increase, with mutual benefit, and the range of our co-operation with other Divisions has broadened.

To promote the study of languages and cultures we have scheduled an "Ecole d'Anglais" for next summer in Ontario (for which government bursary funds have already been established); and a course to start in the fall, for people planning to attend the Japan World Exposition, Osaka, 1970. Students at the well-established Oral French Summer School at St. Pierre et Miquelon are now eligible for government bursary assistance for the first time.

A newsletter for degree-course students is being circulated, with the co-operation of the Division, by a Student Committee that hopes to form a student association. Other steps now being taken to promote the interests of students, both in and out of class, include the addition of reading instruction (to begin in July), in addition to the Writing Laboratory, announced in the last Report, and operating successfully this past year. The counselling services of the section are growing, especially during the evenings, giving more students the opportunity of some personal help, and some acquaintance with the members of the Division; and more consultation hours than before have been made available by instructors, at times convenient to Extension students.

Major consideration has been given to the possibility of expansion of subject offerings in both degree and non-degree courses on the three campuses.

Sixteen secondary school teachers who are summer session students in science and mathematics are again indebted to the International Nickel Company of Canada, Limited, for its generosity in making bursaries available to them.

Full-time engineering seminars advanced this year: three were arranged with

the Faculty of Applied Science and Engineering in co-operation with industry and government. They differed from previous instruction groups and conferences in that their approach was new and they afforded a close working partnership with industry that had not existed before. The course "Digital Computers in Power System Engineering" was of note in that it provided a concentrated course, lasting two weeks, at graduate level, for thirty practising engineers. "Automatic Control in Industry" was co-sponsored by the Department of Industry, Ottawa, and assisted by the Canadian Manufacturers Association; the course lasted one-and-a-half days, with a registration of 200 engineers and members of other related professions. "Managing the Engineering Function" – a three-day course – was presented with the Association of Professional Engineers of Ontario and Urwick, Currie, Ltd., for twenty-five senior engineers and people from middle management. Other courses on engineering subjects have been given within the winter evening programme also.

Demand for all sorts of courses is heavy in the professional and business area, and there has been a 20 per cent increase in registration over that for last year. The main growth lies in the co-ordinated programmes, which lead to recognition from various organizations on successful completion of courses scheduled over a period of years. Over 50 per cent of the 5,000 students in the lecture programme are in such courses. They naturally have obligatory examinations, term-work and grading, but students in most courses can also take advantage of the same testing and examinations on a voluntary basis.

The spring evening session in professional courses was expanded from a programme of eight courses last year to one of eighteen this year, with an enrolment of 350.

Four new courses have enlarged the scope of the programme: "Mergers and Acquisitions," "Metropolitan Toronto Planning," "Theories of Organizational Behaviour" and "Transportation System Planning."

Tape-recorders and various projectors of film and other material form part of our classroom equipment. We are happy to report the acquisition of video-tape recording equipment for use in courses where it is useful for the student to see himself, for instance, in interviewing, counselling, oral presentations and any role-playing form of learning. The equipment will also be useful to instructors interested in assessing their own performance in the lecture room.

In the Correspondence Courses section, two of the year's new courses – "Administration" and "Credit Management" – provided the final year of a revised programme for the Canadian Credit Institute. This is the culmination of forty years of co-operation between the Institute and the University in developing and offering courses for credit managers. The other new courses were in applied mathematics and engineering: Professor Van de Vegte prepared a general course on Control Systems, and Professor R. L. Johnston developed a new course in Numerical Analysis. It is interesting to recall that on planning our original course in this subject, concern was expressed because a student would need access to a desk calculator. The new course assumes that the student will be able to programme his problem assignments on a computer!

Enrolment in the continuing correspondence courses showed a slight increase, but that was more than offset by the withdrawal of students from the first part of the programme for the Canadian Institute of Realtors. (The Institute has decided to enrol its students in less exacting courses on a provincial basis.) The advanced subjects offered (formerly to all students of the Canadian Institute of Realtors) will in future be described by the Institute as a "postgraduate programme" for students who have taken their preliminary work elsewhere. The effect of our policy of constantly raising our standards over the past decade is becoming apparent. In that time we have discontinued certain courses that could not be raised to a sufficiently high academic standard. Now the converse of that situation has just been exemplified. Nevertheless, as the University as a whole places ever greater emphasis on post-graduate studies, it is suitable that Correspondence Courses should take advantage

of the available resources to send out all over the Dominion, and to many parts of the world, a high standard of instruction.

In the case of the Certificate Course in Business the raising of admission requirements has apparently led to a drop in enrolment. This in turn has led to a desirable decrease in the size of classes. Another contribution to smaller classes has been the increase in the number of options in the programme. We hope that this will result in improved examination results.

Students in the Certificate Course in Business were asked whether they wished to form a students' association, but the majority of the few who replied were against the suggestion. On the other hand, an active Alumni Association has been formed.

In the area of credit-free courses in the liberal arts and social sciences a period of review has raised fundamental questions regarding our aims.

This year the University of Toronto has been host to the annual symposium of the International Federation of Automatic Control, and the International Federation for Information Processing (held for the first time in North America). Representatives of the Division of Extension, the Faculty of Applied Science and Engineering and industry have planned and presented a series of very successful meetings, and a wide variety of social events.

An increasing number of adult educators visiting Canada have been directed to the Division for the exchange of ideas and literature. Graduate students in adult education also have visited the offices of Extension, and some have used the records as material for projects and theses.

The Division is grateful to the many members of the University who have provided new ideas, in addition to contributing to the development of the ongoing programme.

The staff in the Division has, as usual, carried on a varied and demanding programme with enthusiasm and initiative. Their pace cannot be sustained, however, without additional staff to provide relief to those in need of vacations, to identify and correct weaknesses in the programme, and to assist in developing new areas of study.

Despite the progress we have been able to report for this year, we look forward next year to the solution of organizational problems and difficulties in providing staff for continuing education at the University of Toronto.

G. H. BOYES

Colleges

THE PRINCIPAL OF UNIVERSITY COLLEGE

It may be that the two most important developments affecting University College during the past academic year occurred outside of the College itself. I refer to the decision, after many hesitations and delays, to proceed with the construction of Innis College and also to the decision to begin limiting enrolment in the School of Graduate Studies. Since students in Innis College use the facilities of University College, including the library and refectory, and since they receive instruction in all the College subjects from the staff here, their lack of anything more than makeshift quarters has imposed very considerable strains on the resources of University College. We have been happy to share with them what we have. But it is good news for us as well as for them that they are now to have, and in measurable time, a fine new building of their own. Similarly, it is welcome news that a start is being made on what will no doubt prove the delicate and complicated and protracted task of setting limits on enrolment in the Graduate School. University College has gained immeasurably from the phenomenal growth in graduate enrolment during recent years. We have been able to attract staff who might otherwise have eluded us. Our departments are much larger than they were before the great expansion of the Graduate School began. They present greater richness and variety. And all this has had an inevitable effect on undergraduate instruction, since almost every member of the College who teaches in the Graduate School also teaches undergraduates. The advantages for University College have been many and unmistakable. Yet it is possible to acknowledge them whole-heartedly and still feel some apprehension about what the consequences for the College might be if the expansion of the Graduate School were allowed to continue indefinitely. To mention only two: a physical fragmentation of the departments in the College would have become unavoidable; and a tendency might have set in to scant the interests of undergraduate instruction in favour of the interests of graduate instruction. These dangers, whether real or hypothetical, are now receding because of the decision in principle that has been taken this year to limit enrolment in the Graduate School. University College lives uniquely in a state of symbiosis with the University of Toronto. The kind of tact that is chiefly required from those who are charged with guarding its fortunes, it has long seemed to me, is to strike the wisest possible balance between contributing largely to the welfare of the University as a whole and yet protecting the integrity of the College as a separate community. It is for that reason that I have listed first in this report two developments occurring in other parts of the University that seem likely to me to make it easier in future to strike such a balance fairly and judiciously.

Last spring was the first time that students from Ontario schools were admitted to University College without having written Grade 13 examinations set on a province-wide basis. This radical new departure involved many new problems for the College, as it did for other colleges and universities throughout the province, and

it is of course far too early to begin evaluating the results. But the new procedures turned up a number of interesting new facts. Of all the students who applied for entrance to the University of Toronto, far more listed University College as the college of their first choice than opted for any other college. It was also remarkable how high was the academic standing of the new first-year class. Admittedly, the numerical average of the new class may have been tilted upwards by the absence of external examinations and by the fewer number of papers to write. But it is the firm impression of the College Registrar, which I share, that University College has never received such an academically distinguished freshman class as it will be receiving this fall. Our only regret has been the large number of well-qualified students whom it was necessary to reject merely because of the pressure of numbers and the stiffness of the competition.

As tested by the annual examinations conducted by the Faculty of Arts and Science, the academic record of the students of University College also continues to be more than satisfactory. The percentage of all the students in University College who gained First Class or Grade A standing last year was 15.7, which is to be compared with the figure of 10 per cent for the Faculty as a whole and with 13.5 per cent for all the students in the College a year ago. At the other end of the scale, the failure rate continues to decline and last year stood at only 6.3 per cent. This is to be compared with the figure of 9 per cent for the Faculty as a whole and of 8.1 per cent for all the students in the College last year. In part, this steep and gratifying drop is to be explained by a more stringent system of selection. Whether there are other factors at work, including some relaxation of standards on the part of some departments in the Faculty and perhaps, it may be, too, a growing disinclination to fail anyone, must remain largely a matter of speculation. The fact remains that there are fewer failures among our students than in the Faculty generally, and more successes. For that fact one may perhaps be permitted a modest hallelujah! It only remains to add that the winner of the Governor General's Medal as the best graduate of the College last year, Mr. Fred Grossberg, was also awarded a Rhodes Scholarship. As a student in the Honour Course in English Language and Literature, Mr. Grossberg achieved a more consistently distinguished record than anyone else within living memory, and I consider myself to have been fortunate in being one of his teachers when he entered the College four years ago. It is these things more than anything else which compensate for the trials and perplexities of trying to be the Principal of a college nowadays.

Student affairs continue to be lively and vigorous. Last fall I was asked to appear before the Council of the University College Literary and Athletic Society in order to explain the composition, structure and functions of the Council of the College. This I did to the best of my ability, trying to do justice both to its somnolences and to its sudden storms. In due course, after they had deliberated the matter, the "Lit" lodged with me a formal request that the students should be represented on the College Council. It seemed to me that this was an issue of such importance that it should be decided only at a meeting of the Council with a very large attendance. I therefore took the unusual step of sending individual invitations to all members of the Council urging them to be present at the second of the two meetings which were held to debate the issue. When the Council met to decide the matter on the afternoon of February 12, there were 91 members of Council present in the Croft Chapter House – a far larger assembly than I had ever presided over since I became Principal. The debate was spirited. At the end I permitted myself to speak at length – in an intervention which struck one member as "statesmanlike" and another as "sentimental," I was to learn afterwards – in favour of student representation. A motion approving it in principle was then carried by a large majority. It was further approved that I should set up a small committee from the present members of the Council who would meet with a similar group from the "Lit" in order to work out the terms and conditions of student representation. Professor T. A. Goudge and Professor F. W. Watt kindly agreed to join the Registrar and myself in this

responsibility, and we have had two meetings with the students this spring. At these meetings provisional agreement has been reached on: (a) student membership on the Committees of the Council; (b) freedom to report on the proceedings of the Council; (c) eligibility of students to serve as members of the Council; (d) the method of election of student representatives; and (e) the voting rights of student representatives. The only subject on which provisional approval has not yet been reached is the question of how many students should be elected to serve as members. As soon as that issue has been resolved – as I have every confidence it will be – the way will be open to a fundamental change in the oldest and most central of the bodies charged with handling the affairs of the College.

I should also mention that the "Lit" has been active in many other ways. Mr. Hershell Ezrin, the President, with others on his executive, co-operated with the officers of the College in putting on the "Freshman Weekend" at the opening of term in the fall, himself leading a foray of Red Guards to suitably impress the newcomers. A new, and highly successful, edition of the U.C. Follies was staged in November. In the last week of January a festival was held on "Society as Madness and Myth," which included films and plays, two environmental media shows, lectures, an environmental mind excursion and, as a finale, a concert of lights and music in Convocation Hall, featuring the "Mothers of Invention." Was my consciousness expanded by all this? I don't know. What I do know is that the music was very loud – and that a lot of people had a lot of fun!

The year has not been without tension and unrest in the residences. It is there, perhaps more than anywhere else in the College, that the gap between the generations is felt most keenly, that new attitudes toward authority and responsibility are most apparent, that the conflict between old and new life styles create most problems, and that the search for new modes of living and consciousness can be most unsettling. It is greatly to the credit of the two Deans, Miss Charity Grant and Mr. Michael Howarth, and of the dons who assisted them, that all the problems which arose during the year were resolved with such comparatively little turmoil. In some quarters it has been suggested in the interests of economy that the dons in residence should be either reduced in number or else dispensed with altogether. I disagree. I believe that nowadays the tasks of a dean of residence are far more difficult than they have ever been in the past, so much so that it would be quite unrealistic to expect them to be carried out at all, far less successfully, unless whoever is the dean can count on the support of a full complement of dons. That should not be taken to imply that I would welcome a return to an older regime, when the College, and the Principal, and the Registrar, and the Deans, and the dons, all stood, in their own way and to some degree, *in loco parentis* towards the students. Changed circumstances have made such a parental relationship largely untenable. (And my own two sons are quite enough for me!) But it should be remembered that, while students for the most part are more mature than they used to be and many of them, perhaps most of them, are quite capable of handling their own affairs, whether scholastic, practical, social or sexual, some of them are not. It should also be remembered that in the late teens and early twenties many a young person is looking – among so many other things! – for some older person to turn to in place of a father or mother. Students are claiming greater freedom for themselves than ever before. But one consequence of greater freedom among students at the university is a greater, not a lesser, need for guidance, assistance and – perhaps, above all – for older people who are simply *there!* These are some of the reasons why, when the University decided that in order to balance the books of the residences it would be necessary to reduce the number of dons in Whitney Hall and the Sir Daniel Wilson Residence, I was glad to be able to find money in the budget of the College to maintain the existing complement.

This year, for the fourth year in a row, there has been an increase in residence fees. But this year the increase is much larger than in any previous year. In 1965 the fees in the Sir Daniel Wilson Residence were increased by \$50 to \$730 (the fees in Whitney Hall are comparable but slightly lower). In 1966 the fees in the men's

residence were again increased by \$25 to \$755. In 1967 the increase was \$50, so that the fees became \$805. This year the increase has been \$130, so that a student entering the Sir Daniel Wilson Residence next fall will pay \$935 for his board and lodging during the academic year. I appreciate that part of the very sharp increase is to be accounted for by inflation and the rising costs of food and service. But I also know that by far the largest part of the increase is to be explained by the need of the University to meet somehow the charges of amortizing the capital cost of the residence accommodation in New College II. What worries me is that this method of financing new residence accommodation may make the older residences, such as those in University College, too expensive for many of our students. As long as the principle is maintained that all the undergraduate residences for which the University is responsible must be self-supporting, there may be little alternative. But, as I have indicated in previous reports, I have never been able to see why that principle should be sacrosanct.

At about this time last year I wrote as though it could be taken for granted that the renovation of the theatre in the Women's Union would be completed in time for it to reopen in the fall of 1968. Alas, things aren't turning out that way. A substantial part of the work required was carried out in the summer of 1967, but the summer of 1968 will pass without anything further being done. Rising costs and the necessity of complying with new procedures laid down by the Department of University Affairs for capital projects being undertaken by universities throughout the province resulted in this project, like others in the University, being deferred. It is a great pity that the theatre has remained closed now for almost three full academic years and that, as a result, the Players' Guild of the College has been deprived of a home. It is greatly to the credit of the Guild that it has managed to survive and even to mount a number of highly interesting productions, notwithstanding such adverse circumstances. My only consolation for this disappointment is that completing the renovation of the Women's Union Theatre is on the list of capital projects of the University of highest priority and that it would require even a less sanguine temperament than mine to believe that another summer could pass without the work being completed.

Another capital project on the list of highest priority is of even greater moment for University College. That is the renovation of the old main building of the College. Ever since I became Principal in the summer of 1964 that has been under active consideration and discussion. Now at last cardinal decisions have been taken and detailed professional planning for it is under way. Last year the Property Committee of the Board of Governors decided "that Professor Eric Arthur be appointed as architectural consultant to prepare jointly with the Department of Physical Plant, and the Planning Division, and the Principal of University College, a phased programme for the renovation of University College." Since then Professor Arthur and Mr. Everett Wilson (of the firm of Wilson and Newton, with which Professor Arthur is associated) have been zealously at work, and in May they submitted a preliminary report. After outlining the architectural and historic significance of the building, they offered this judgment: "The fabric of the building would seem to be sound, but years of neglect have given the interior a drabness that is completely out of character with the architecture. The restoration contemplated should provide another hundred years of life, the kind of joyful student life that was contemplated in 1856." They then went on to propose a programme to be carried out in five stages. The first stage would include:

- (a) The preparation of a complete set of drawings of the building from all available information and by examination and measurement.
- (b) Policy meetings with the Ontario Fire Marshal to obtain a general understanding of mandatory requirements and possible concessions.
- (c) The preparation of appraisals of the existing fabric; washrooms and plumbing; heating; electrical supply; ventilation; fire protection; and acoustics.

This exploratory work has all been authorized and is now being carried out. It is expected to proceed rapidly with the other planning phases of the project, so that all the preparations will have been carefully completed by the time the substantial capital funds that will ultimately be necessary have been authorized. For the crucially important progress that has been made on this project during the last academic year I am deeply indebted to the Board of Governors, the President, the Acting President, the Director of the Planning Division, the Director of the Department of Physical Plant and the consulting architects.

Last year, as always, I relied heavily on the counsel and assistance of the Chairmen of the Departments in the College. Although they have very taxing departmental duties, they all interested themselves in more specifically College concerns as well, and I am very grateful. In the course of the year replacements had to be found for two retiring chairmen. Professor W. J. N. Rudd resigned as Chairman of the Department of Classics to become Professor of Latin at the University of Liverpool. He had been only briefly Chairman of the Department, but had been a member of the staff of the College since 1959 and during that period had endeared himself to all who knew him for his high spirits, his keen learning and his fine humanity. He will be greatly missed. In the circumstances, it was not possible to set up the full panoply of an advisory committee to recommend a successor. I therefore invited Professor Graham Sumner to serve as Acting Chairman of the Department through the coming academic year, and he very kindly agreed to accept. Of Professor Clifford Leech, who resigned this spring as Chairman of the Department of English in the College, I find it difficult to speak impersonally or with moderation. He became Chairman at the same time as I became Principal. He gave devoted leadership to the Department in which I have been proud to serve. His scholarship is immense and covers many of the fields about which I should like to know more, and he was never too busy to share some of it with me. And I am as grateful to him for that constant kindness as for his painstaking attention to the affairs of the Department and his concern for the welfare of the College. His successor is Professor John Carroll, who has already shown great gifts of buoyancy and composure in taking over the responsibilities of his new appointment.

I must record with deep regret the death during the year of two valued members of the staff of the College. On April 22 Professor Fritz Heichelheim collapsed with a heart attack on the front steps of the College and died only a few minutes afterwards. For twenty years he pursued his researches from his study in University College and lectured here on Greek and Roman History. He leaves behind him great monuments of scholarship and the memory of a heart, I think I may say, that was singularly innocent and unembittered in spite of all his sufferings. Professor Marcus Long, too, is gone. He will be remembered in other ways for his challenging scepticism, for his ability to communicate to undergraduates his own excitement about philosophical issues, and for his knack of intermingling concern for the affairs of the day with more permanent preoccupations.

The lives of these men are part of the life of the College. So are the contributions of two other youthful spirits who, though now retired, are happily still with us. I find it hard to believe that either Professor Robert Finch or Professor Norman Endicott is old enough to have retired, although both of them are among my oldest friends and mentors in the College. I was a student of Norman Endicott when I was an undergraduate and I have tried to be faithful to the lessons I learned from him – to look at the text carefully, to form one's own judgment, not to be overawed by the canonized reputations, to be on the lookout for whatever is fresh and good wherever it may be found. He has been teaching such lessons – and others that are even subtler and more intimate – to generations of students at University College for more than forty years. Robert Finch I first met the day I first registered in the College. What impressed me then and what has impressed me ever since is his great grace of mind and manner. To hear him play a Mozart sonata, or read one of his own poems, or

explicate a difficult passage from Valéry or St. Jean Perse, is to be convicted of awkwardness – and to be gently encouraged to do better. It is a great pleasure to know that both these men, though retired, are not to be far away.

The College continues to be indebted to others who have left it but who are still part of its corporate life. I mean the graduates. The alumnae have been active in many ways to stimulate interest in the College – through their annual Symposium, through their Christmas reception (which was held last year in West Hall) and through the help of various kinds that they have given to the Dean of Women. The alumni, for their part, have been of great benefit to the College by pressing its needs on the attention of the Board of Governors. Two meetings of the University College Committee of the Board were held during the past year and, in addition, I had the privilege of addressing the full Board at its November meeting. I should also mention two very generous gifts from former friends and members of the College. Professor T. J. Meek, for many years a member of the staff of the College in the Department of Near Eastern Studies, left the bulk of his estate to establish bursaries for University College students; and Mrs. Marjorie F. Barlow bequeathed to the College a suave and painterly seascape by Paul Peel in honour of her late husband, the Hon. Fred H. Barlow, who graduated in 1908. For these gifts the College is deeply grateful.

Finally, I should like to single out the names of two men, one in the University and one in the College, for special appreciation. During his year in office, the Acting President of the University, Mr. J. H. Sword, has proved himself as good a friend of the College as the President has always been – and that is to say a great deal. Professor R. M. H. Shepherd, the College Registrar, has rendered services, day in and day out, that have been beyond praise. He knows the calendar and the regulations, no one better. But what is more, much more, he knows the students. He knows them with an eye that is disabused but always sympathetic. Amid all the pressures of meetings and routine, he has never forgotten the kind of place that University College should be – a place that is free, and human and humane. I hope it will always remain that way.

D. V. LE PAN

THE PRINCIPAL OF NEW COLLEGE

This is the sixth report on New College. Like previous reports it will not only present factual information for the year but also discuss briefly some of the problems confronting our developing academic community.

The year was a stable one in the sense that for the first time there was no change in the physical facilities available, and no marked increase in the number of members. While to some extent it was a year of consolidation, it can more aptly be described as one of suspended animation – waiting for the second building. Last year a total membership of over 1,500 overtaxed our facilities, and an increase of about 50 (mostly in the Faculty of Arts and Science, where numbers increased from 1,082 to 1,126) did nothing to alleviate this condition. Numbers from the professional divisions were kept about the same (433 as compared to 426) by again applying an arbitrary academic criterion, accepting only freshmen with at least 70 per cent in Grade 13. Over two hundred students with lower standing were refused. Since at present our academic involvement with students in professional courses is small (the optional College tutorial) we have no way of knowing how many of the students we accepted actually took advantage of their membership – or how many of those we

had to refuse used the facilities of the College notwithstanding. In the case of students using certain rooms, such as the library or the music rooms, College membership is checked, but much of the building is open to all members of the University.

Next year for the first time we shall have an opportunity to experiment with a programme for a specific group of students in a professional course. All formal legislative steps have been taken, and students entering the first year of the pre-medical course will be required to be members of New College or Innis College. In 1969-70 this requirement will extend to the second premedical year as well. For the 1968-69 session a premedical office will be set up in Innis College, and all counselling of these students will be done through this office. It is hoped that in addition to taking over the counselling and advisory services now offered through the Faculty of Medicine, the two colleges will be able to introduce, in co-operation with that Faculty, special events designed to interest and instruct this group of students.

We have all been keenly aware throughout the year of the second College building rising outside our windows. We critically need the additional academic and social space, and we believe that the influx of a large number of female resident members will have an extremely beneficial effect on the College *esprit de corps*. Our enthusiastic anticipation is tempered by the knowledge that the building will not be ready at the beginning of the academic year in September as originally planned. At the time of writing it is believed that some part of the space will be available for the second term, so that we may have the opportunity, as in the case of the first building, to offer one term of residential experience to many students on the campus (whether members of New College or not) whose homes are in Toronto and who would not ordinarily find a place in residence.

In our early years the academic performance of members of the College in the Faculty of Arts and Science was somewhat below that of the Faculty as a whole, a natural consequence of accepting a disproportionate number of minimally qualified applicants who had been rejected by the other colleges. However, as stated in last year's report, this is no longer the case. The statistical results for the College this year are slightly better than for the Faculty. In particular, in all three years of the General Arts course and in two of the three years of the General Science course, the percentage of students achieving A standing is higher than that of the Faculty as a whole, and the percentage of students failing is lower than that of the Faculty. The only point in making this observation is to emphasize that as far as its student body is concerned, the College is no longer, as initially it had to be, a poor relation of the older colleges. We are attracting some excellent students, and we must make every effort to see that their faith in the College is justified.

One important factor in attracting good students is the existence of an adequate scholarship programme, and we are grateful that it has been possible for the University to continue to provide the College with some funds for this purpose. It is unfortunate that this has had to be done on an annual *ad hoc* basis, because it has not been possible to plan and publicize a continuing scholarship policy. However, the development of an overall policy for the University, having in mind the impact of the provincial student aid plan, is under way. In addition to ten named awards (Varsity Fund, Wetmore, Wilson and Waddell scholarships) there were 56 in-course and 44 admission New College Council Scholarships awarded, an increase of 30 over the previous year. The proportion of these awards made to students in professional divisions decreased (to 31 per cent from 39 per cent), reflecting in part the increased academic qualifications of members in the Faculty of Arts and Science. Since 28 per cent of the college membership is in professional divisions, an equitable proportion of the awards was made to such members.

There were 233 graduates this year, 20 in professional divisions, 49 in honour courses, the balance in the general courses, bringing the total number of New College alumni to nearly seven hundred. An alumni association has resulted from the enthusiasm of a few interested graduates, and its executive is endeavouring to institute a programme which will attract a reasonable proportion of graduates. During the

next quadrennium of the Senate of the University, the College will have for the first time a representative elected by the alumni. Any graduate of the College, whether in Arts and Science or a professional division, is eligible for election. This provision is important because at present the most active members of the alumni association are graduates in engineering.

The number of full-time academic staff members directly connected with the College (cross-appointed with University College), teaching English and French to New College students, occupying offices in the College and forming the majority of the College Council, increased again but no longer in a simple arithmetic progression. The numbers for the past four years have been 0, 5, 10 and 15. This year there are 18, divided equally between the two subjects, and in addition 12 teaching fellows. While most of the teaching of these subjects is a matter of joint departmental policy, some variation is possible. An experiment with English tutorials described in last year's report has been successful and will be continued.

The optional College tutorials in Chemistry and Physics, instituted when the College was founded in 1962, are being continued and each year become a little more successful. Sessions are arranged on the basis of the time-tables of individual students after the beginning of term. This year, of 326 freshmen taking these subjects, 190 applied for the tutorials, a considerable increase over earlier years. The number of students who regularly attended the tutorials was much smaller, but significant. There are four tutors in each subject, some of whom have become active members of the Senior Common Room. Office space in the College is provided for the teaching fellows in English and French, but not for the tutors.

The College has shared in the general attempt to involve students more formally in the administrative machinery of the University. The College Council last year approved the principle of student membership on the Council, and the proposal was implemented this year. Five students serve as full members of the Council: the President of the Student Council serves *ex officio*, two other members are elected by and from the Student Council and two others (non-members of the Council) are appointed by that Council. These students have made an effective contribution to the deliberations of the Council.

This year by mutual agreement of the College and Student Councils there has been established a staff-student committee with three representatives from each council. This body is intended to be a forum for free discussion; it has no chairman or agenda, keeps no formal minutes and has no power except that vested in individuals (the Principal and the President of the Student Council are *ex officio* members). It can of course discuss if it wishes matters referred to it by either council or it can make recommendations to either council through its members. The committee met about once a week. Its primary value has been the education of its members. Lengthy discussions ultimately led the staff to realize that students were really less dogmatic than Student Council pronouncements might lead one to expect, and the students were led to recognize that staff members were neither (even in the case of over-thirty, or untrustworthy ones) completely unsympathetic towards the aspirations of students, nor (even in the case of young, progressive ones) very tolerant of ill-considered student demands. The final accord in most cases was based on understanding and not on exhaustion, but reaching this agreement was a time-consuming process. Are all of our problems those of communication across the generation gap?

As in other divisions of the University, a great deal of time this year was spent in discussing informally, in committee and in Council, the Macpherson Report and, in particular, its implications for the College. It is perhaps an indication of the relative youth of the academic staff and of the present role of the College that the Council approved, with only minor reservations, all of the recommendations of this Report (Numbers 64-79) concerning the colleges and their organization. The Council specifically approved the principle of centralized (or university) departments for the present college subjects.

One aim of the recommendations of the Macpherson Report is to make the college affiliation of each student more meaningful. The Council felt that this could be done to some extent within the present teaching and organizational structure of the Faculty of Arts and Science, without waiting for the possible implementation of the Report, in whole or in part. At present in university subjects some large classes are divided into several sections for lecture purposes, and in some cases classes are broken up into a large number of small groups for tutorial work part of the time. In a few cases this sectioning is done on a college basis, but in most cases it is not. The Council recommended that the possibility be explored of doing more sectioning on a college basis, at least as far as New College is concerned. With the approval of the Dean of the Faculty and the heads of the other colleges, representations were made to the chairmen of several of the larger university departments on behalf of New College and Innis College. The chairmen were in all cases sympathetic towards the proposal, and it appears that in at least five university subjects there will be some sectioning of New College students next year. Clearly this is only a first step; to strengthen effectively the bond between student and college, the sections should be taught in the College and the instructors should have some relationship (formal or informal) with the College. Next year space will permit only a limited number of tutorial groups to be held within the College, but when the second building is available much more will be possible.

In these reports reference has often been made to the difficulty of developing a College identity. The heterogeneity of our membership makes this a formidable task – and will make its achievement the more rewarding. One effort made this year to bring our diverse elements together has been the invention of the Gnu Society. Members (anyone associated academically with the College) are invited to meet weekly in the Dining Hall for coffee and conversation. The only stipulation is that members are required to speak at length (more than ten seconds) to someone they do not know. Even though meetings did not begin until the last six weeks of term, there was an enthusiastic reaction from many students, and the Student Council plans to co-operate in continuing the experiment next year.

The Student Council had a traumatic year, in that the entire executive resigned in mid-term. This action, which apparently neither the executive nor the Council really wanted, perhaps came about because of a belief that formal administrative procedures can be substituted for goodwill. In spite of this difficulty, the Council carried out effectively its role in the College. While no council manages to do all the things it plans in the flush of enthusiasm at the opening of term, each year's Council comes closer to this goal. The Council has stimulated and supported student involvement in a wide variety of educational, social, artistic and athletic activities. Particular reference should be made to the Gnu paper, which was published regularly in a new and ambitious format, and to the Freshman Handbook. This was published for the first time and served to introduce incoming students if not to all aspects of university life at least to the eccentricities of some members of the College including the Dean and the Principal.

The degree to which Student Council elections are acclamations continues to be disappointing. It is to be hoped that an increased involvement of students in university government will lead to an increasingly involved and informed student candidature and electorate. Would that it had been the other way around!

The residence statistics are about the same as last year. Of the 291 men in residence, nearly one-half are freshmen; about one-third are in each of the Faculties of Arts and Science and of Applied Science and Engineering, the remaining one-third being distributed across nine other divisions. The number of residents accepted from outside Canada has increased from 33 last year to 48. There were nearly 700 applications for residence, and it was not possible to accept any students from the metropolitan Toronto area.

The traditional residence role may be changing. With the advent of an increased (or more articulated) desire for student freedom, and with the appearance near the

campus of a large quantity of good quality co-operative student housing so that an alternative to university-operated residences is available, it may be that a smaller proportion of more senior students than in the past will be interested in university residences. These residences may evolve, then, as an intermediate state between the complete paternalism of home (and parents) and the complete "freedom" of an apartment or co-operative housing. Students (encouraged by their parents) may wish to live for a year or so in this transitional state before moving on to a greater degree of autonomy. In some ways this would not be in the best interests of the residences, because the broader the range of academic maturity and interest of the residents, the more stimulating the atmosphere of the residence community, but it may be inevitable. One alternative is to attempt to compete with off-campus housing by granting autonomy to the residents. We cannot accept this as an alternative because it seems essential that as long as the University operates the residences, it must accept responsibility for them – responsibility not only for their educational aspects but also for their government. This does not mean that students should not be involved in this government. They have been and perhaps they should be more involved. However, if the residences become, as has been suggested, primarily occupied by first and second year students, there will be a smaller pool of mature students to whom one can look for strong, enlightened leadership. On the basis of experience with the New College Residence Committee (the student governing body) it is difficult to see how complete autonomy could work, because the students must contend with two somewhat contradictory principles: self-government (which implies some control of the actions of individuals) and individual freedom (which may involve interference with the freedom of other individuals). To date the Residence Committee has been unsuccessful in resolving this dilemma, and autonomy could lead to anarchy. It is possible to argue that the evidence is irrelevant because operating with limited freedom is completely different from working with complete freedom. However, since massive experiments in student-operated housing are being undertaken off-campus, it does not seem necessary or desirable to duplicate them here.

The University operates residences because of their educational value. Students are exposed, in a social environment, not only to one another but also to other more senior members of the academic community. While this to some degree involves many staff members, the primary exposure is to those who actually live in the residence – in the case of New College, to Dean Stager and the dons. Consequently the role of the dons is a very important one. While they to some extent act as disciplinarians and counsellors, their primary function is an academic one (and what teacher does not act as a disciplinarian and counsellor as well?), providing academic guidance and leadership for the residents. For the first time next year provision for the dons will be made in the academic budget for the College, rather than in the residence budget as has been the case to date. This recognition of the academic role of the don is significant at a time when the traditional nature of the residence is being challenged. Some critics have lumped maid service and dons as residence luxuries. The question of maid service is a trivial one and will lead to no dispute, while that of the dons is of fundamental importance. The presence of active and interested dons is one important factor in distinguishing the New College residence from simply a place where students are housed. If university residences do not provide more than housing, they should not continue to exist as part of the university structure.

The spectre of rising residence fees, due to capital costs for new residences, continues to haunt all of us concerned with residences. The fact that it costs a student more to live in residence than to live off-campus means that the residences must continue to offer academic and supervisory advantages. It seems short-sighted to suggest, as has been done, that residence fees be pared by eliminating the factors that give the residences these advantages. The amount saved would not be sufficient to make this housing financially competitive and we would have given up our distinguishing characteristics.

In last year's report an experiment with an optional food plan was described. This system, in which residents operate on a pay-by-meal basis instead of contracting for full meal services, has been very popular. This year over two-thirds of the residents have chosen this plan, and it will be continued. One disadvantage of the system is that it does not encourage the development of a residence community spirit, and for this reason all students entering the residence for the first time in September are required to take the prepaid food plan for the first two months of residence life.

Emphasis in this report on problems connected with the changing role of the residences should not be allowed to obscure the fact that the resident members of the College provide the impetus and the focus for a great deal of the activity of the College. It is because the residence is such a vital part of the College that its continuing healthy existence is important.

As the College matures it becomes necessary more and more to ask staff members on the College Council to become involved in other than purely academic work. I am particularly grateful to those who have given generously of their time on the staff-student committee and the Macpherson Report committee, as well as to those who have participated actively in Council meetings. Important discussions concerning the development of the College and the University are taking place, and it is essential that the voice of the teaching staff be clearly heard.

Professor Bertie Wilkinson, who has been an active Fellow of the College since its formation, has retired as Director of the Centre for Medieval Studies and become even more active lecturing at other institutions. It is a pleasure to thank him for his interest and support in the past and to welcome him as an Honorary Fellow of the College.

Mrs. Megan Coffey, who took over from Mrs. Ziplans as librarian this year, has continued to develop efficiently a library suited to the needs of a multi-faculty college. The existing stacks are bulging, waiting for the move to the expanded library in the second building.

Mr. William Dowkes, who became Senior Tutor last year, taking over some of the duties of the late Stewart Wilson (who had been Assistant to the Principal), continued in this position as well as remaining as a don in residence. At mid-term he accepted a position as an assistant to the Secretary and Assistant Dean of the Faculty of Applied Science and Engineering, thus closing a circle which began in 1962 when Mr. Wilson retired from that position (Secretary and Assistant Dean) to become the first Registrar of New College. We welcome our continuing association with that Faculty and we particularly thank Mr. Dowkes for giving of himself so completely in his association with New College. As the only tutor (in chemistry) who was also a don, his tutorial hours were infinitely extensible, as was his patience. It has been his work, together with that of the other dons, which has convinced me of the academic necessity of dons for the residence.

It is a pleasure to record that the Board of Governors of the University has given approval to the naming of the first New College building as Wetmore Hall and the second as Wilson Hall. This recognition of the first Principal and first Registrar of the College was recommended by the College Council and I am sure is endorsed by all members of the University.

My heaviest debt of gratitude is to my hard-working colleagues, the Registrar and the Dean of Students. The Dean, David Stager, has added a PH.D. to his B.S.A. and his three M.A.'s and manages to be very active in his field, the economics of higher education, as well as to fulfil his role in the College with efficiency and enthusiasm. The Registrar, Archie Hare, is coping with a variety of rapidly changing phenomena (admissions, student aid, course structure) with quiet wisdom and dedication. At a time when some students are suggesting that the University does not treat them as individuals, the concern of such men as these for each student as an individual should be emphasized.

There are continuing changes in administrative procedure which arise from the

rapid development and changing character of the University. Much of the burden for effectively handling these changes falls on the office staff, and I congratulate our staff for assimilating such changes expeditiously, and for carrying out their duties willingly and with unflinching courtesy.

This report has focused on problems rather than on achievements, not to be pessimistic but to show our areas of concern and development. An increased academic involvement with our students in the Faculty of Arts and Science, the introduction of a programme for premedical students, access to the facilities of the second building, creation of the Gnu Society – all of these are steps in our evolution as a vital academic constituent of the University. We are proud of our progress so far and look forward with enthusiasm to the future.

D. G. IVEY

THE PRINCIPAL OF INNIS COLLEGE

In most respects the 1967–68 session was an excellent one at Innis College. The results achieved at the final examinations in April were very satisfactory: fewer failures, a high proportion of A's and B's, and the awarding of the Moss Scholarship – “for the best all-round student in the graduating year of the Faculty of Arts and Science” – to an Innis student, Robert J. Bossin. Two notable steps were taken during the year, the seating of students as full members of the Council and, in conjunction with New College and the Faculty of Medicine, the decision to give real meaning to the multi-faculty college idea by associating the premedical programme with the two multi-faculty colleges commencing in September 1968. In the course of the year, arrangements were made to acquire additional temporary accommodation for the College at 63 St. George Street, a step which will permit a sizeable expansion of the College's academic programme in 1968–69. The Writing Laboratory continued to flourish and its influence to expand – at least four other Canadian universities are known to be considering the establishment of a similar facility. And, as this report will document in due course, there were other accomplishments and other causes for satisfaction.

Nonetheless, at the end of the year the position of the College was anything but satisfactory. Throughout the session the Council had devoted a great deal of its time to further work on the planning of the Innis College Building on Sussex Avenue, which according to all reports was scheduled to be completed in the summer of 1971 for occupancy by the College in September of that year. But in July the Council was advised that this schedule was not firm, that in fact the financial situation in which the University found itself might render necessary a postponement of the project for one, two or even five years. The Council's reaction to this news was immediate and clear-cut. At a special meeting held on July 11, 1968, the Council reaffirmed its belief in the college system as an essential element in the operation of the Faculty of Arts and Science and equally its belief in the concept of the multi-faculty college. It then stated its conviction that any further delay in the completion of the Innis College building would have the most serious effects on undergraduate education at the University of Toronto: in the first place it would endanger the health of the Faculty of Arts and Science because, with an enrolment of over 8,000 students, at least six *adequately equipped* colleges are needed if the arts college system is to function effectively; and in the second place, by postponing indefinitely the effective working out of the multi-faculty

college idea, it would render suspect the genuineness of the University's concern for undergraduate education in the professional faculties and schools. The Council concluded by resolving to report these conclusions to the President with the request that the position be clarified and that every effort be made to insure that the Innis College building was proceeded upon without delay.

The body which reached these conclusions, the Council of Innis College, is truly representative of the membership of the College. One could not have made this statement a year ago. At that time the Council consisted of fifteen persons, the President of the University, the Principal of the College, the Registrar of the College, and twelve members of the teaching staff from various faculties and schools, appointed by the President. But as noted in my previous annual report, the 1966-67 Council recommended to the President that the membership be expanded to include two types of person not then represented, (a) students and (b) administrative officers who did not also hold academic appointments at the rank of assistant professor or above. This recommendation was approved in October 1967, and in consequence the Council of 1967-68 has included five students and three additional administrative staff members. The Council has also invited the President of the Innis College Alumni Association to attend meetings of Council as a non-voting member. This Association was formed in October 1967.

The business of Council is conducted through five standing committees. All matters are referred in the first instance to one of four Committees - Academic Affairs, Accommodation, Awards, Student Affairs, the latter including within its terms of reference anything not obviously related to one of the first three. There is also a Policy Committee, which acts as an executive committee for the Council and which co-ordinates the work of the other four committees. The Policy Committee consists of the chairman of the four other committees (elected in each case by the members of the committees), the Principal, the Registrar, the Chairman of the Council and the President of the Innis College Student Society. Each of the four students elected to the Council by the student body sits on one of the four basic committees, on which are also represented professorial and administrative members. Normally no one sits on more than one committee; the Council is convinced that the obligations of Council membership can be met without interfering with the obligations that the individual has as student or professor, but it takes every step possible to insure that no one is placed in the position where Council duty becomes a full-time occupation.

Because the business of Council is conducted through these five committees, a report on the work of each is in effect a report on the year at Innis College. This is how we shall proceed. It should be noted that the Chairman of Council and the Principal and Registrar of the College are *ex officio* members of all committees. Only the regular members are listed below.

Academic Affairs: (Professor J. B. Falls, Chairman, P. Grosskurth, D. A. MacRae, Mrs. Evelyn Cotter, Acting Director of the Writing Laboratory, Robert Bossin, III General Arts).

This Committee has general responsibility for the supervision of the Writing Laboratory and the Tutorial Programme, but its main preoccupation in 1967-68 was with the Macpherson Report on Instruction in the Faculty of Arts and Science. Following the publication of the Report in October, the Committee spent several months reviewing the nearly 100 recommendations as each would affect the College, and in March it submitted to the Council a lengthy report, which Council considered in April and May. In general the Committee approved of most of the recommendations and particularly those related to the introduction of tutorials, which in their view should, whenever possible, be based on college registration, but it was concerned, as was the full Council, with the failure of the Report to provide for the introduction of experimental programmes. There are over 8,000 students in the Faculty of Arts and Science and there ought to be provision for special programmes

for students whose interests and talents do not clearly fall into neat departmentally-oriented courses of study. The College is prepared to act as a centre for experimental programmes should the Council decide that such provision should be made.

Implementation of the recommendations of the Macpherson Report must await action by the Council of the Faculty and the Senate, which will be taken in the fall of 1968, but there has been some anticipation of such action. With the approval of the Academic Affairs Committee, arrangements have been made for tutorial or section groups for Innis students in a number of first year courses, for example, English, French, mathematics, political science, philosophy and psychology. Ten to twenty staff members and graduate students will be involved in these groups and will be associated with Innis College in 1968-69 as part-time academic staff.

During 1967-68 the tutors at Innis College worked primarily with individual students, and to a considerable extent, in association with the staff of the Writing Laboratory. There were no formal seminar groups as in previous years, experience having shown that the scheduling of voluntary classes at times convenient or even possible for the students interested poses almost insuperable problems. The tutorial staff consisted of Thomas Brett, II Law (political economy), Dereck de Kerckhove, S.G.S. (French), Diego Bastianutti, S.G.S. (Spanish), Mrs. Ann Hodge (English), Michael Glicksohn and Alan Bernstein, both IV Innis (mathematics), Elaine Kirsh IV U.C. (psychology) and Dale Taylor, S.G.S. (science).

As indicated earlier, the Writing Laboratory continued to flourish under its Acting Director, Mrs. Cotter, whose part-time colleagues were David Aurandt, Bernadette Sulgit and Mrs. Ruth Davidson. There was a further increase in the number of students applying for the assistance the staff can provide and in the total number of interviews given. The Writing Laboratory in the Department of University Extension, which Mrs. Cotter also directed, had a busy first year, and there are indications that other laboratories are to be established at Guelph, Western Ontario, Manitoba and Prince of Wales College.

Accommodation: (Professor R. E. Jervis, Chairman; J. E. Sabry, R. G. Prodrick, H. J. Parker, Administrative Assistant; John Weylie, IV Applied Science and Engineering).

The Accommodation Committee has had two areas to contend with, the Permanent Building and Temporary Accommodation. Each is a sizeable problem, and the Committee found it necessary to expand its membership by inviting additional students to sit with it - Jane Carter, Clare Booker, Peter Ordynec and Betty Parish, were particularly active.

It was stated in the 1966-67 Annual Report that the architect had been authorized to prepare detailed working drawings of the Permanent Building. This was an erroneous statement; indeed, this authorization has yet to be made. What Mr. Hart Massey had been authorized to do in late June 1967 was to prepare a more detailed plan of the design which the Board of Governors approved in principle at that time. He completed this work by late September. In November the University submitted this plan to the Department of University Affairs for approval. In January the Department reported that while it approved the plan as a plan, it regarded the total cost as excessive and indicated that its financial support would be based on a figure substantially lower than that proposed. Mr. Massey was then asked to submit a revised plan which would reduce the cost to that proposed by the Department of University Affairs. This he was able to do by removing some desirable but not essential elements (air conditioning in the residence portion of the building, for example), by economizing on the exterior finish, and by rearrangement of particular rooms. This revised plan was submitted to the University in late March and a new submission to the Department of University Affairs was made in April. In June the financial crisis revealed itself.

The Building Committee has been involved at all stages of this sequence and its members have had numerous meetings with the architect and the University

authorities. Its chief concerns have been to accelerate the action and to insure that in any changes in the design, there is no sacrifice of the facilities considered essential to the academic programme which the College will carry on in the building. The Committee has not been notably successful in the first of these efforts as a year's delay bears witness, but it has been successful in the second. If the present plan is proceeded with, Innis College will be in a position to do precisely what it has been working towards since the adoption of the Users' Report in January 1966.

In October the College was advised that the University had rented from Knox College the building at 63 St. George Street which has housed the Presbyterian Synod for many years, and that the lower two floors would be placed at its disposal in the summer of 1968, with the third floor being turned over to the School of Graduate Studies. The Building Committee has had the responsibility of deciding on the allocation of this additional space and of arranging for the required furnishings. It has relied heavily on the efforts of Hugh Parker, the Administrative Assistant, who in this task, as in a number of others, has done a remarkable job.

Since several hundred yards separate the present building from the new one, the Committee was immediately faced with the problem of how to deploy the space available in such a way that the College was not divided into two separate entities. The solution reached has been to divide the academic, administrative and student union facilities between the two buildings rather than to concentrate any one of these in either of the two. Thus there will be a student common room in each building. The Registrar's office will be at 63 St. George Street but the Principal's office will remain where it is. The Writing Laboratory will also remain in the old building but the tutorial and study rooms will be at 63 St. George Street. The latter will also be the headquarters of the premedical students and will provide the office for the Personal Counsellor. The offices of the Student Society will be at 63 St. George Street but the student newspaper office will be in the original building.

The addition of 63 St. George Street means that Innis College now has three locations - or four if one regards, as we all tend to do, the Laidlaw Library in University College as an integral part of the College. The third location is at 681 Spadina Avenue, a women's residence accommodating nineteen students which we acquired a year ago. With the assistance of Miss Patricia McCarthy, our first don, the students have developed a lively and efficient community.

Awards: (Professors P. Peach, Chairman, E. A. Sellers, B. Brainerd, H. J. Parker, Kenneth Saul, III General Arts).

The Awards Committee is responsible for the recommending of students for the awards that are within the gift of the College, and it acts as an advisory committee to the member of the College staff who administers student loans. Normally this necessitates three or four meetings in the course of the year, notably at the beginning with respect to the admissions awards, and at the end, following the final examinations, with respect to in-course awards. This year, however, the Awards Committee met at least a dozen times. It reviewed the whole basis of awards at Innis College and proposed a new arrangement.

In the three previous years, a number of Innis College Associates Awards were made to students who showed marked improvement in their year's work over their record of the previous year. The Awards Committee proposed that these awards be abolished and that the two new awards be established in their place, the Honours List Award and the Innis College Award. The Honours List Award, which carries with it a book prize, will be made to all students who obtain first class standing in their year and at the discretion of the Awards Committee to students who obtain high second class standing which represents a significant improvement over the work of the previous year. The Honours List Award can be won each year that the student is a member of the College. The Innis College Award is restricted to students in their graduating year. To be eligible, a student must obtain second class standing in his graduating year and have contributed significantly to the life of the College

during his years as an undergraduate. The number of such awards is not to exceed 5 per cent of the graduating class.

The Council approved the recommendation of the Awards Committee and directed that the scheme come into effect with the 1967-68 session. Fifty-six students qualified for the Honours List Award. The Innis College Award has been made to the following members of the graduating class: Robert J. Bossin, Paul Culliford, Michael Glicksohn, Maie Niiholm, John Weylie and Alan Bernstein. Mr. Bossin was also the winner of the Acadia Award, the graduate "judged by the members of Innis College to be the best all-round student."

Student Affairs: (Professor K. N. Walker, Chairman, W. Callahan, G. B. Payzant, H. J. Parker, Paul Culliford, IV Political Science and Economics).

The work of this Committee is closely related to that of the Innis College Student Society. A number of its projects are undertaken in association with the Society or one of its committees, for example, the Orientation Programme, the Innis College Banquet and this year the (successful) attempt to arrange for the College to be open at all hours that the University Library was operating. Indeed, it could be argued that the Council would be wise to invite the Society to name three of its executive to sit on this Committee as additional members. This is one area where there is everything to be said for joint action.

This is not to say that the Innis College Student Society is not concerned with the work of the other three basic committees, nor is it an argument in favour of the melding of the two bodies. It is entirely appropriate that students should be represented on the College Council, but it is also entirely appropriate that there should be an Innis College Student Society which is in a position to make direct representations to the Council on behalf of the student body.

The main item on the agenda of the Student Affairs Committee in 1967-68 proved to be the consideration of a proposal to appoint to the staff of the College a Personal Counsellor, i.e., a person professionally trained to provide assistance to students with respect to problems of an emotional or social, as distinct from an academic or financial, nature. The Registrar of a College is able to provide the assistance a student needs on the academic and financial side, but he is normally an amateur in these other matters. It is apparent that many students do have problems that are beyond the expertise of an academic counsellor, and the question thus arises, Does a College have a responsibility to provide assistance in this wider area? After studying the question in considerable detail, the Student Affairs Committee concluded that the College may very well have this responsibility and it, therefore, recommended to the Council that a Personal Counsellor be appointed on a part-time basis as an experiment in 1968-69. The Council accepted the recommendation and Mrs. Linda Belanger, a graduate of the School of Social Work, has been appointed to the position.

Policy Committee:

The Policy Committee, whose chairman is the chairman of Council, has been involved in all the matters so far mentioned since it normally reviews the recommendations of the basic committees before they go to the Council. It has also been involved in two other matters, the relation of the Innis College Student Society to the Council and the decision to involve the two multi-faculty colleges in the Faculty of Medicine programme for premedical students.

The proposal was made to the Council by the Innis College Student Society that it should be entirely independent of the Council, that, to be specific, it should not be required to have Council approval for changes in its constitution and that it alone should decide on the amount of student affairs fee to be levied on its members. On the advice of the Policy Committee which examined this question over several months, the Council rejected this proposal, basically on the grounds that the College is a community and a community implies a single ultimate authority. That

authority at Innis College is the Council, on which all elements of the community are represented.

In September 1968 all first year premedical students will register in either New or Innis College. The office of the Premedical Counsellor will be in the Innis College Building at 63 St. George Street and the programme of counselling and orientation which has been provided by the Faculty for several years will be carried on from this new base and expanded in a number of ways. It is expected that in 1969-70 when both premedical years are involved and when New College has its second building, Premedical Counsellors will be appointed for each College.

Professor Peter Russell of the Department of Political Economy, and a member of the Council since its establishment in July 1964, will be the Acting Principal for 1968-69. The College is fortunate that he has agreed to serve in what obviously will be a crucial year. But in my view, he too is fortunate. In dealing with the problems that face the College, particularly those connected with the permanent building, the development of the academic programme in arts and science, and the experiment with premedicine, he has behind him, or more accurately beside him, an experienced Council, staff and student executive. Four of the professorial Council members have resigned, Professors Peter Peach (Geology) and Jean Sabry (Food Sciences) to accept positions at other universities, and Donald MacRae and Geoffrey Payzant who have served for four years, but ten others remain. Joining the Council are Professors J. C. Guillet (Chemistry), E. F. Sheffield (Higher Education), A. M. Wall (Psychology) and C. W. Webb (Philosophy). The new president of the I.C.S.S., Susan Stoess, is a worthy successor to Kenneth Stone and John Bayly. In David King, who has been promoted from Acting Registrar to Registrar, Miss Patricia Cole, who has been appointed Assistant Registrar, and Mrs. Cotter, he has experienced colleagues, and in John Parsons, a Trinity graduate of 1967 who has been named Assistant to the Principal, a new point of view. It is a pity the College will not have the services of Hugh Parker in 1968-69 - he has accepted a position of Assistant to the President at Lakehead University. The College is in his debt and wishes him well.

The chairman of the Council in 1967-68 was Professor Morris Wayman. Professor Russell is particularly fortunate that he has been unanimously elected to serve for a second term.

ROBIN S. HARRIS

THE PRINCIPAL OF SCARBOROUGH COLLEGE

During the past year our full-time enrolment rose to approximately 1,000 and we produced our first graduating class of approximately 100. Thus the College was effectively launched less than five years after the decision was taken to create it.

There is no single person to whom the College owes more for its early success than Dean Beckel who has now left us to become Vice-President of Lethbridge University. In this age of specialization he maintained his academic specialty. Yet he was also a rare generalist, indeed universalist; whatever he touched he embellished and enlivened. Students and staff alike were encouraged by his example, his acumen and his enthusiasm. He and his wife and family take with them our affectionate good wishes.

The coming five years will be very different from the first. Together with the other universities and colleges of the province we now face the financial stringency

resulting from high birth rates and high immigration rates in the past and rising college-attendance rates at the present. Committees of our faculty are face to face with the new challenges. Our Curriculum Committee has been devising a College curriculum that will, on the one hand, respond to the challenge of the Macpherson Report and yet, on the other hand, fit within the limited funds that now seem likely to be available to us under the formula-financing of the future. Our Academic Users' Committee is similarly reviewing the best disposition of funds that may be provided for building expansion. And our General Policy Committee is giving increasing attention to the current problems of operating the College.

The capacity of our present building is about 1,500 full-time students and we expect it to be nearly full, possibly completely full, in 1968-69. In the fall of 1969 we expect to be unable to accept all applicants, as new facilities cannot be in place by that time. But the University and the province have now approved the funds necessary to proceed with planning so that new buildings could be available in 1970. These would increase our academic capacity by about one-third and also provide a modest first instalment of recreation facilities and residences. The continuing absence of residences and recreation facilities is a source of increasing concern and resentment among our students, who rightly consider that their years in Scarborough College lack dimensions that are available to those on the St. George campus and in other Ontario universities.

The year just past was also clouded by our awareness that a not insubstantial number of our first-year class (constituting nearly two-thirds of our total enrolment) were with us, if not under duress, at least *faute de mieux*. Staff as well as students were infected by the disquiet. Learning from last year, we are now introducing an extensive summer-counselling service for new entrants, the students in association with the staff are arranging a new "orientation programme," and we have in mind various other measures designed to get our new first-year class off to a better start.

We are strengthening our top-level academic administration by the appointment, on a one-year experimental basis, of three acting "Chairmen of Divisions" - Humanities, Social Sciences, and Sciences. With a faculty now topping 100 (although many on a part-time basis on our Campus) the Dean himself was no longer able to deal adequately with all of them and all of their problems. Yet to set up departments for each of the disciplines offered in the College - now numbering 26 - would have involved undue fragmentation. The concept of organization along the lines of the three Divisions was planned from the earliest days of the College, and we believe it will encourage the type of interdisciplinary involvement that the College was established to encourage.

Among the students, the most important innovation of the year was the launching of the "Guild" system under which each student, soon after he or she joins the College, becomes enrolled in one of four Guilds for purposes of sports and other College activities. Each Guild is made up of a mixture of men and women, science and arts students, and students in the three academic years. We believe that, as we grow towards our target-enrolment of 5,000, this system of subdivision will become increasingly significant in College affairs.

The Division of Extension offered 27 degree courses in the College during 1967-68 and a further 7 during the summer of 1968. In 1967-68 they also offered 8 business and professional courses and 4 liberal arts courses.

To our staff and students, and to the many visitors who still flock to see our building, we were able to offer a series of 25 Sunday afternoon concerts of considerable distinction. We are planning another series in the year 1968-69 and are happy to have increasing collaboration and guidance from the music education authorities of the Borough of Scarborough. We have also been able to present a series of outstanding art exhibitions. Our particular thanks last year were due to the National Film Board and to the Art Gallery of Ontario. Scarborough College is by way of becoming a launching-pad for exhibitions destined to travel throughout

Ontario and, indeed, beyond Canadian borders. Invaluable financial support for these and other initiatives has been forthcoming from the Scarborough College Foster Alumni Association and from the Varsity Fund.

A. F. W. PLUMPTRE

THE PRINCIPAL OF ERINDALE COLLEGE

In September 1967, after two years of planning, Erindale College enrolled its first class of 151 freshmen, 99 in General Arts and 52 in General Science. In addition 259 part-time students provided 324 enrolments in 16 evening courses given by the Division of Extension. Full-time academic staff increased from 11 to 28.

The preliminary building was completed on time. It has proved admirable for the limited purposes and small number of students for which it was designed. Besides lecture rooms and offices it contains a good library supplied through the Ontario New Universities' Library Project, science and language laboratories for undergraduates, a laboratory for physics research, a computer, a small television studio, cafeteria, bookstore, health and student centres and other facilities. Compact design created an intimate atmosphere which both students and staff enjoyed.

To accommodate the increased enrolment expected in 1968-69 the students' centre and some administrative offices are being moved to two houses on the campus which belong to the University, minor alterations are being made in the existing building, and a garage is under construction which next year will serve as an additional undergraduate laboratory. When the main complex of buildings has been completed the present building will provide offices for the non-academic administrative staff and the garage will house vehicles for maintaining the grounds. A playing-field has been levelled and showers provided to allow greater participation in intramural sports and outdoor activities.

The Board of Governors has approved and released a description of a Master Plan for the orderly development as need arises of a complex of buildings to accommodate 5,000 students in the Faculty of Arts and Science, with residences for some of them. About two-thirds of the campus will still be left vacant for recreation, research and future expansion. Construction of roads and services for this complex has begun, and tenders are being called for the construction of those first buildings needed to accommodate the additional enrolment anticipated in 1969-70. These include more adequate undergraduate and research laboratories.

The Erindale College Council consisting of members of the faculty elected eleven subcommittees and invited student representatives to attend all meetings. The Principal's Council was also established to act as an advisory body to the College Council and to provide a broader channel for communication between student organizations and the academic and administrative staff.

The students organized a Student Administrative Government at Erindale which played a constructive part in shaping the new college under the able leadership of Dale Miles and Paul Kochberg. In addition to organizing activities throughout the past year, SAGE has already made plans for an orientation programme for freshmen and for other activities in 1968-69.

The Arts Committee of the College Council was singularly successful in arranging a succession of events in drama, music and the arts. A series of seven exhibitions covering a wide range of painting, sculpture and photography attracted

over 10,000 visitors to the College. The purchase of nine works of art, made possible by a generous donation from the Varsity Fund, has provided the beginning of a permanent collection.

During the fall term, the Lectures Committee of the College Council sponsored a series of eight science lectures designed to bring to the notice of the local community examples of important scientific research being done in the University of Toronto. Attendance was excellent.

To provide liaison and a channel of communication between the College and the community, a number of persons interested in the well-being of Erindale have met, elected a committee and are organizing "The Associates of Erindale College."

All members of Erindale College are grateful to Dr. D. Carlton Williams, the first Principal, for the wise and strong leadership he gave in planning and organizing the College, and we wish him well in his new position as President of the University of Western Ontario.

J. T. WILSON

THE MASTER OF MASSEY COLLEGE

Fifty new Junior Fellows were elected by the Admissions Committee and joined the 37 who remained from previous years. As usual, the College was full during the vacation, housing 47 summer students as well as College men who remained in the University.

In the University's full term the College provided accommodation for 125 visiting professors and guests of faculties. There were 117 conferences, meetings, seminars and kindred university functions in the College during term, and seven receptions following convocations. Several conferences and faculties dined or lunched in College, and the Senior Common Room entertained visitors and Junior Fellows fortnightly, so that in all 1,400 guests were regaled inside our supposedly forbidding walls.

The amount of teaching within the College continues to grow. During term 355 graduate students came each week to Massey College for seminars in English, Bibliography, Palaeography, Medieval Studies, Chinese, History, French, Philosophy and the History of Science. Twenty-three M.A. and PH.D. oral examinations were held in the Round Room, in addition to the written examinations of the Drama Centre. The College is now the campus centre for eight senior academics, as well as the Drama Centre and the Committee of Presidents of Universities of Ontario.

On December 30 the College received news of the death of its Visitor, the Rt. Hon. Vincent Massey, in London; at his burial in the churchyard of St. Mark's, Port Hope, on January 5, forty members of the College were present, and the pallbearers were chosen from among our Junior Fellows; the eight young men were from every quarter of the globe and provided in themselves evidence of the range from which Massey College draws its men. On Sunday, March 17, a Memorial Service for the Visitor was offered in the Hall of the College, which was filled to its capacity.

Something of the profound obligation the College owes to the late Vincent Massey was expressed on that occasion, but it is not in the power of words to tell of the careful thought he gave to its founding and its nature before it was built, or the distinguished taste and passion for excellence he brought to the task of overseeing the building. He did not impose a form on the College, trusting rather to

time to reveal the direction it would take. It is a matter of profound satisfaction to everyone associated with the institution that this form had begun to reveal itself, and that the College had begun to show something of its possibilities as a centre of research, while Mr. Massey was alive to see it, and to express his approval.

That approval was shown in nothing so much as in his decision to leave his personal papers, which are in themselves a record of fifty years of the political, educational and artistic development of Canada, in the care of the College. They have been accommodated in a special room in the Library, under the guardianship of the Master and Fellows.

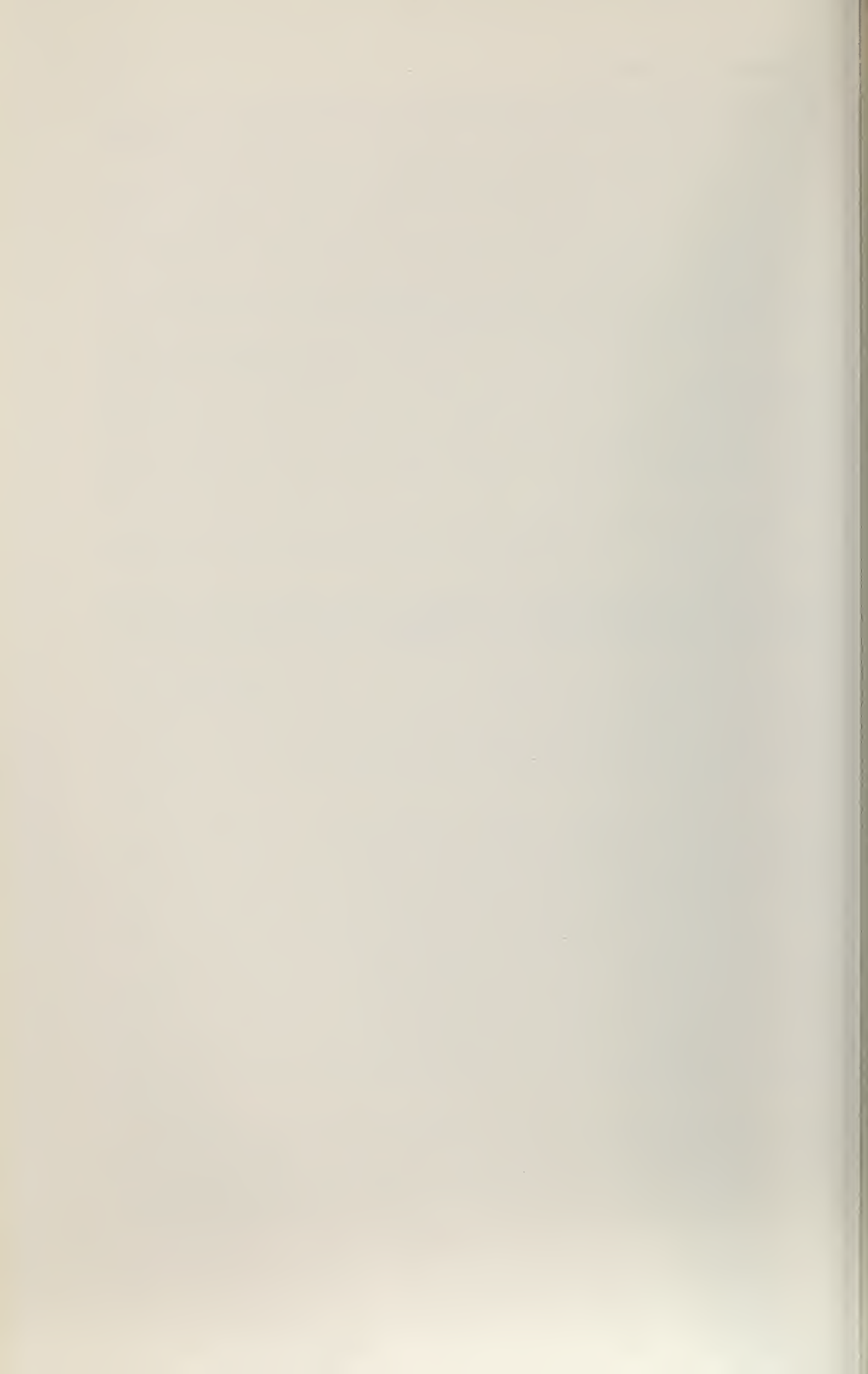
Mr. Massey also left the College his personal library, which contained several rare examples of Canadiana. It will be accommodated in the Upper Library of the College, for use under the Librarian's direction.

The chaplain, the Reverend John N. Buchanan, has accepted a parish charge at Gilmerton by Crieff, near Perth in Scotland. The chapel was the scene of a marriage and two christenings. During term Holy Communion was celebrated monthly, and Mass once; monthly Vespers services, open to the public, were well attended and the College Choir continued to provide music drawn from late seventeenth and early eighteenth century composers, edited for this purpose by the choirmaster, Gordon Wry, and the organist, Giles Bryant. The Choir also provided music at the Christmas Gaudy, a winter concert and a concert to mark the end of term.

Books were published during the year by Northrop Frye, W. E. Swinton, W. A. C. H. Dobson, R. D. C. Finch, J. M. S. Careless and the Master, among the Senior Fellows.

The College records with pleasure the award of the Lorne Pierce Medal for literature, given by the Royal Society of Canada, to Professor Robert Finch. We also congratulate the College organist, Mr. Giles Bryant, who has been appointed to succeed the late Dr. Healey Willan at the Church of St. Mary Magdalene.

ROBERTSON DAVIS



Centres and Institutes

THE DIRECTOR OF THE CENTRE FOR MEDIÆVAL STUDIES

On July 1, 1967, the Centre began its fourth year as a fully constituted unit of the School of Graduate Studies. In these formative years the Centre reached an impetus and variety of work that produced heavy and rapidly increasing administrative duties for the director and two academic secretaries, Professors Norman P. Zacour and Brian S. Merrilees. At the same time, decisions tended to be made by this small group without sufficient involvement of the Centre's large and able faculty, a problem inherent in any centre whose staff is largely cross-appointed from departmental staff widely separated in professional focus and – not least in importance here – in distance from the centre's office. At my request and with the support of the advisory committee, Professor Zacour agreed to be chairman of an *ad hoc* committee composed of Professors Leonard Boyle, K. O. Kee and A. M. Watson; it was formed in October 1967 to study the administrative organization of the Centre and recommend steps to be taken in order to delegate and distribute the Centre's administrative work over a wider base in its faculty. The report was prepared with admirable dispatch and was ready for submission in December. It recommended that the Advisory Committee be reformed as a Steering Committee composed of nine members. The term for members would be three years with three members leaving and three new ones added each year. This Steering Committee is to deal with broad policy issues and is to establish standing committees that report to it. These standing committees are given executive power. That is to say, they are empowered to act in the area of their competence. This recommendation lies at the heart of the new organizational scheme, for it involves real delegation of responsibility with the expectation that each committee will work with independence. The hope was that staff members would willingly undertake this committee work because they would be making decisions and acting on them, not merely engaging in the draining and frustrating procedure of reporting back to higher authority for whatever action was judged correct. This hope has been born out in experience and these committees are functioning ably. They remove a great deal of work from the executive group, especially the director, and involve many members of the Centre's faculty in executive capacity. Three committees were established in December 1967: Admissions and Scholarships, Library and Regional Seminars. Three more were added later in the year: Ph.D. Programmes, Photographic Archives and Staff/Student Relations. The Centre now has a diversified and flexible organization in which many faculty members have real responsibility to make decisions and act on them. With this comes an active interest and commitment to the Centre that are among the most difficult attitudes for the director of any centre to stimulate. The Centre in general and I in particular owe a debt to Professor Zacour and his committee for the important and beneficial changes that have come about.

Staff

Several new appointments have been made in areas of medieval studies that needed strengthening. Mr. Hermann Pálsson, Senior Lecturer in Old Norse at the University of Edinburgh, was visiting professor for the year 1967-68 and offered courses in Old Norse and Middle Irish. His visit was supported in part by the Canada Council whose aid is acknowledged with gratitude. Five appointments for the academic year 1968-69 were made. Mr. Angus Cameron, a graduate student at Oxford University and a Rhodes Scholar, was cross-appointed to the Centre and the English Department of University College with the rank of Assistant Professor; his special interests are in Old English Philology and Lexicography. Mr. John Chamberlin, a graduate student in the Centre, was cross-appointed to the Centre and the English Department of Victoria College with the rank of Lecturer; his special interests are in Middle English and Medieval Latin. Miss Roberta Frank, a graduate student at Harvard University, was cross-appointed to the Centre and the English Department of University College with the rank of Assistant Professor; her special interests are in Old English, Old French and Old Norse. Mr. A. G. Rigg of Merton College, Oxford, and visiting Professor at Stanford University, was cross-appointed to the Centre, the English Department of Trinity College and the Graduate Department of Classics with the rank of Associate Professor; his special interests are in Medieval Latin and Middle English. Mr. H. A. Roe of Harvard University was cross-appointed to the Centre, the German Department of University College and the Centre for Linguistics with the rank of Associate Professor; his special interests are in the Germanic Languages (especially Old Norse, Faroese, Frisian, and Old Saxon) and in Comparative Germanic Philology. He is also interested in Celtic languages and will be teaching Old and Middle Irish. These appointments do much to strengthen three neglected areas of medieval studies at the University of Toronto: Medieval Latin, Old Norse and the Philology of Germanic languages.

During the first term of the academic year 1968-69 Father Edmund Colledge, a noted authority on Medieval mysticism, will be visiting professor to the Centre through the support of a grant from the Canada Council. There is a good possibility that cross-appointments can be made next year in Musicology and Byzantine Studies, to take effect for the 1969-70 academic year.

Publication

The first of the Toronto Medieval Bibliographies, *Old Norse-Icelandic Studies*, compiled by Hans Bekker-Nielsen, was published late in 1967 and has been well received. The manuscript of "Medieval Rhetoric," compiled by James J. Murphy, was submitted in the spring of 1968. Professor Leonard Boyle of the Pontifical Institute of Mediaeval Studies has agreed to join the project with a selective bibliography on Palaeography. Negotiations are underway with other scholars to prepare selective bibliographies on Celtic Literature, Middle English Literature, the History of Medieval Science and Technology and Aids for Textual Study.

Each volume includes a selected bibliography and has three basic aims: to aid graduate students working in the area covered by the title; to guide medievalists who want to read in a subject where they have had little formal training; and to be a basic list for libraries in forming a collection of books in the subject. The series is under the general editorship of the Director and is published by the University of Toronto Press.

Regional Seminars

The Centre sponsored two Regional Medieval Seminars during the 1967-68 academic year; these were planned on an interdisciplinary basis. One object was to increase professional contacts between medievalists in universities in Ontario, up-state New York and other near-by districts. This aim was adequately achieved with attendance at each seminar approaching 125. The first was on "The Court and Courtliness in the Middle Ages" and was held on October 14, 1967, with Professor A. R. Harden as chairman. Three short papers were offered for discussion: "The Minnesinger and the Court," given by Professor H. Milnes, Chairman, Department

of German, University College; "French Literature and Courtly Patronage in the Middle Ages," by Professor H. Secor, Department of French, Victoria College; and "Clio and Venus, An Historical View of Medieval Love," by Professor J. Benton, Department of History, California Institute of Technology. The second was on "The Culture of the Medieval Town" and was held on January 13, 1968, with Professor J. A. Raftis as chairman. Here, too, three short papers were offered for discussion: "Bourgeois Literature in the Middle Ages," by Professor J. Flinn, Department of French, University College; "The Friars and the Towns," by The Reverend Keith Egan, Prior, Mount Carmel College, Niagara Falls; and "The Centres of Medieval Town Life," an illustrated lecture, by Professor J. Acland, School of Architecture, University of Toronto. For the 1968-69 academic year two more of these highly successful seminars are planned. The subject for the October meeting will be "The Two Cultures in the Late Medieval Period" and for the January, "The Liberal Arts and Medieval Life."

Visiting Lecturers

During the year there were eight visitors. These visits do much to establish direct connections with other universities and provide opportunity for interchange of views on different aspects of medieval studies. Where a visitor was sponsored jointly with a department, that department is indicated in parentheses. Professor Alfred Ewert of Oxford University lectured on "The Linguistic Consequences of the Norman Conquest" on October 12 (French, University College). Professor John Benton of California Institute of Technology read a paper on "The *Autobiography* of Guibert de Nogent" on October 16. Professor Alan Cameron of the University of London and visiting Professor at Columbia University gave a lecture on "Poetry and Propaganda at the Court of Honorius" on November 16 and conducted a seminar on "The New Monument of a Charioteer called Porphyrius Found in Constantinople" on November 17. Professor Marshall Claggett of the Institute for Advanced Study at Princeton gave a lecture on "Euclid in the Middle Ages" on January 30 (Committee on the History and Philosophy of Science). Professor Wolfgang Fleischhauer of Ohio State University gave a seminar on "Wortgeschichtliches Problem aus der Frühzeit der Deutschen Sprache" on February 15 (German, University College). Visiting Professor James Shiel of the University of Sussex gave lectures on "Boethius and the Transmission of Greek Thought to the Middle Ages" on February 20 and on "A Greek School Manual in the Middle Ages" on February 27 (Classics, University College). Professor Larry D. Benson of Harvard University gave a lecture on "Malory's *Book of Sir Tristram de Lyones*" on March 7 and a seminar on "The Audience of Old English Poetry" on March 8. Professor Urban T. Holmes of the University of North Carolina gave a slide lecture on "Medieval Houses in the Twelfth and Thirteenth Centuries" on March 14 and conducted a seminar on "Medieval Houses - Town, Manor and Palatial" on March 15.

Microfilm Archives and Photographic Collection

As a pilot project the Centre has started a collection of microfilm copies of all mss. containing Anglo-Saxon. The microfilms will be used to make Xerox prints which can be bound so that the entire corpus of Anglo-Saxon will be available in facsimile at Toronto, an obvious, and possibly unique, research resource. The pilot project will be evaluated to determine whether or not the archive should be expanded into other areas.

The photographic collection is of slides of medieval art and artifacts for use in lecturing and prints for use in research. This collection is under way with about 3,000 items catalogued, including some 500 slides and prints of medieval Hungarian art.

Medieval Drama

The Medieval and Tudor Play Society, Poci Ludique Societas, presented three plays. The *Crucifixion* sequence from the York Cycle was performed in October, including a performance at the first Regional Medieval Seminar. This was perhaps

the most moving and powerful of all the plays done to date. In December the *Mactacio Abel* and *Process Noe Cum Filiis* from the Towneley Cycle were presented. Through the generous support of the Varsity Fund this production was taken to the annual meeting of the MLA in Chicago and given in the ballroom of the Palmer House in December 1967 where it was well received by a large audience. John Fisher, Executive Secretary of the MLA, wrote a brief appreciation of the performance in *PMLA*, 83 (1968), 1464. In January 1968 the same production was staged for both the Ontario Music Educators' Symposium and the second Regional Medieval Seminar. The third performance was of Thomas Preston's *Cambises* presented in February.

The Societas is gaining a wide following and has received a number of invitations to take plays to other universities and conferences. In the 1968-69 season there are plans for three major productions, all of which will be played at the University of Toronto and be taken to other locations. The Societas has now become established in Toronto as the most active centre in North America for production of pre-Elizabethan English theatre.

Registration

The number of applicants continues to rise steeply, but the Centre has decided to limit acceptances for several reasons. Although medieval specialists may be in short supply, the demand is relatively inflexible and is satisfied by a relatively small number of people. Since graduate training in the area has expanded greatly in the past decade, there is the real possibility that able young medievalists will not be able to find suitable university posts. We also wish to avoid undue strain of heavy supervisory responsibilities on our staff, especially in areas of student concentration such as English and History. Starting in 1968-69 the Centre will admit only those students with first-class undergraduate records at recognized universities who are supported by their referees. This policy should produce an enrolment of about 15 new students a year, a number that seems reasonable under current conditions.

A year ago my report consisted largely of plans and proposals. The year just past has been one for giving substance to these projections and my report now is largely of what has been done. This is an important transition; the Centre has moved beyond its nascent stage and is now concerned primarily with the quality and significance of its activities in hand at least equally with its concern for new departures, however stimulating they may be. The early years of the Centre were largely empirical and policy grew out of hard thought about the actual situation of the Centre at Toronto. We set about what was at hand. From this work an abstract concept of a centre has emerged clearly and, like most ideas that arise from data, has proved to be valid.

JOHN LEYERLE

THE DIRECTOR OF THE CENTRE FOR RUSSIAN AND EAST EUROPEAN STUDIES

Our Summer Russian Workshop, the first of its kind in Canada, attracted during its initial summer in 1967 fifty students, both graduates and undergraduates, of whom there were 25 from various parts of the United States and 25 from Toronto and other parts of Canada. During the eight-week session, intensive language instruction

was given at the introductory, intermediate and advanced level, and special reading programmes for research scholars and for participants in the exchange with the USSR were given. The workshop was manned by a staff of seven instructors under the direction of Mr. Serge Kononoff.

The conjoint M.A.-diploma programme in Russian and East European Studies completed its fourth year. Enrolment continued to be small. Diplomas were awarded to two students, namely, Stanley Kirshbaum in Political Science and Fred Dreissiger in History.

The exchange programme with the Soviet Union was continued with the aid of grants from the Canada Council and the Varsity Fund. Five Soviet scholars spent nine months in Canada, one at the University of Guelph, and four at the University of Toronto. These were: Mr. Igor Agu, Leningrad State University (American Literature); Mr. Igor Kerov, Siberian Automobile and Road Construction Institute in Omsk (Mechanical Engineering); Mr. Michail Boldyrev, Michurin Horticultural Institute, Moscow (Zoology); Miss Irina Kuzina, Moscow State University (Geography); and Mr. Vasily Okorokov, M. I. Kalinin Polytechnical Institute, Leningrad (Economics and Engineering).

Five Canadians went to the USSR, four to Moscow and one to Leningrad, namely: Mr. Bohdan Harasymiw, PH.D. candidate in Political Science, a Toronto graduate; Mr. Donald Schwartz, PH.D. candidate in Political Science, University of Wisconsin, a Toronto graduate; Miss Sylvia Russell, PH.D. candidate in History, Indiana, a Toronto graduate; Mr. Vladimir Pavloff, PH.D. candidate in History, California, a graduate of Carleton University; and Miss Miriam Fleischman, PH.D. candidate in Literature, Paris, a graduate of McGill University.

One of our students, Vladimir Pavloff, was expelled from the USSR in late February after various charges had been made against him in the government newspaper, *Izvestia*. The Centre made a strong protest to the Soviet Ministry of Higher and Specialized Secondary Education and urged an agreement on future procedures governing the exchange that would provide opportunities for students in such a situation to be forewarned and to defend themselves against the charges. Although the expulsion was a serious blow to the mutual confidence underlying the exchange, it was decided not to take any form of retaliation, but to continue a programme that has been successfully carried out for six years. During that time a total of 23 Canadian scholars have spent an academic year in the USSR and a corresponding number of Soviet scholars have studied at Toronto and Guelph.

The senior exchange of professors entered its second year with the visits of two Soviet scholars to Canada and of two Canadian professors to the USSR for a period of eight weeks each. We received Dr. Jonas Petro Kubilius, Professor of Mathematics and Vice Rector of the Vilnius V. Kapsukas State University, and Professor I. F. Antonova, Department of Geography of the Moscow State University. Both made extensive tours of Canada and visited other universities. Professor Maya Jenkins of the Department of Slavic Languages and Literatures spent eight weeks in Leningrad and Moscow, working on the Soviet writer, A. F. Pisemskii. Professor Stephen Clarkson, of the Department of Political Economy, also spent eight weeks in the USSR working on Soviet theories of the developing world.

Under the guidance of the Centre's bibliographer, Dr. Bohdan Budurowicz, the Russian and East European collection in the library made substantial progress, largely due to the Madill Bequest of \$30,000. The Centre also received a grant of \$40,000 from the Donner Foundation for a two-year period.

During the year, the Centre received a number of distinguished outside guests for lectures and seminars, including the following: Dr. Heinz Joswig, Director, Institute for Economy of Developing Countries, Berlin (East); Dr. Jiří Štěpanovský, Institute of International Politics and Economics, Prague, Czechoslovakia; Professor James A. Billington, Princeton University; Dr. Michael Futrell, Head of the Department of Slavonic Studies, University of British Columbia; Professor Alexandor Kornai, Institute of Economics, Budapest, Hungary; Professor

Ghita Ionescu, London School of Economics; and Professor Richard Lowenthal, Otto-Suhr Institute, Berlin.

During the course of the year the Director gave lectures and seminars at a number of universities, including Princeton, Yale, Columbia, Michigan, Notre Dame and Berkeley, California. He also attended the annual policy conference of the Inter-University Committee on Travel Grants, which administers the exchange programme between the USA and USSR.

Canada Council awards were received by Professors Peter Brock, Harvey Dyck and H. Gordon Skilling.

H. GORDON SKILLING

THE DIRECTOR OF THE CENTRE FOR INDUSTRIAL RELATIONS

The year 1967-68 has been one of consolidation for the Centre for Industrial Relations. Two major developments stand out. The first was the extension of our Membership Plan which culminated in our first Annual Membership Dinner, at which Dean George P. Shultz of the Graduate School of Business, University of Chicago, addressed the gathering on "Jobs and the Ghetto."

The second was the appointment of a full-time Librarian, Miss Jean Newman, for the Centre's Industrial Relations Information Service. Our collection of materials is now expanding rapidly, thus enabling us better to serve not only interested faculty and students, but also our member organizations and the community at large.

A number of seminars were arranged during the year featuring such participants as Mr. J. Finkelman, Chairman of the Public Service Staff Relations Board; Professors E. E. Palmer and R. Wonnacott of the University of Western Ontario; Mr. J. A. Belford, Vice-President of Personnel and Industrial Relations, Massey-Ferguson Ltd.; and Mr. Alton Craig, of the Economics and Research Branch, Canada Department of Labour.

No major conferences were convened during the year, but the proceedings of two previous conferences were published, one on *Law and Industrial Relations* and the other on *Wages, Prices, Profits and Economic Policy*. In addition, the Centre published a book of essays on *The Canadian Labour Market* under the joint editorship of Professors A. Kruger and N. M. Meltz. This was the final product of the preliminary phase of a general labour market study begun when the Centre was established. We are now in the process of seeking funds to finance an extension of that project.

Those interested in the Centre's work have been pursuing a number of research projects during the year. Among those being undertaken by faculty members are studies by Professor Sheila Eastman on "Labour Market Responses to Women Service Workers" and "The Allocation of Market and Non-Market Activity in Time"; Professor A. Kruger on "Human Adjustment to Industrial Conversion"; Professor J. J. Loubser on "The Impact of Industrial Conversion"; Professor S. Maxwell on "An Evaluation of Management Development in the Canadian National's Great Lakes Region"; and Professor S. Schiff on "Labour Arbitration Procedures." Professor John Kyle is working on a book entitled "A Behavioural Approach to Management Development," and, during his leave of absence with the Federal Department of Manpower and Immigration, Professor N. M. Meltz is working on "A Study of Labour Market Information Systems in Canada."

Increasing student interest is reflected in the growing number of theses in the industrial relations field, including those by Mr. Irving Abella on "The History of the CCL in Canada from 1936-56"; Mr. Ozay Mehmet on "Optimum Choice between In-School and In-Plant Training for Adult Workers in Ontario"; Mr. Hart Rossman on "The Rights and Remedies of the Individual Employee in Grievance and Arbitration Procedures"; Mr. G. Swartz on "Collective Bargaining in Toronto Secondary Schools"; and Mrs. S. Zerker on "The History of the International Typographical Union in Toronto."

As usual we must acknowledge the assistance of many groups and individuals. We are particularly grateful to our member organizations for their financial support which has enabled us to assist students with scholarship aid and to build up our library resources. A special note of thanks is due to the Toronto Construction Association for continuing to provide us with a generous scholarship. We also wish to express our appreciation to the members of our Council and Advisory Council, and to those who have taken on other assignments on behalf of the Centre. Finally we are grateful to the Varsity Fund for its financial support.

JOHN H. G. CRISPO

THE ACTING DIRECTOR OF THE CENTRE FOR CULTURE AND TECHNOLOGY

During the current session, Professor Marshall McLuhan, Director of the Centre, has occupied the Schweitzer Chair in the Humanities at Fordham University, New York. He will return to the University of Toronto in July 1968.

Following the pattern established in previous years, a major activity of the Centre during the current session has been the weekly interdisciplinary seminar. The theme during this session has been "The Communication of Values." As in the past, the object has been to bring together a group of scholars and scientists to introduce topics associated with the theme and to lead subsequent discussions. The Centre has been encouraged by the consistently good attendance at the seminars - an average of 25 faculty members and students drawn from several disciplines have attended each Monday evening. The Centre is particularly grateful to the following scholars and scientists who presented seminars during 1967-68: Professor J. W. Abrams, Department of Industrial Engineering, and Department of History, U. of T.; Mr. Ray Affleck, Architect (Montreal); Professor D. E. Berlyne, Department of Psychology, U. of T.; Mr. Milton Carman, Province of Ontario Council for the Arts; Professor W. T. Easterbrook, Department of Political Economy, U. of T.; Rev. A. G. Gibson, St. Michael's College; Professor T. A. Goudge, Department of Philosophy, U. of T.; Professor Michael Gregory, Department of English, York University; Professor Ian Jarvie, Department of Philosophy, York University; Dr. D. V. LePan, Principal of University College; Dr. Warren McCulloch, Research Laboratory of Electronics, Massachusetts Institute of Technology; Mr. Wm. McElcheran, Artist; Professor T. F. S. McFeat, Department of Anthropology, U. of T.; Professor H. J. Olnick, Faculty of Music, U. of T.; Professor Brian Parker, Department of English, Trinity College; Mr. Ronald Ritchie, Director, Imperial Oil Limited; Professor Edward Safarian, Department of Political Economy, U. of T.; Dr. E. Llewellyn Thomas, Institute of Bio-Medical Electronics, U. of T.

Professor J. W. Abrams, Department of Industrial Engineering and Director of the Institute for the History and Philosophy of Science and Technology, and Professor T. A. Goudge, Department of Philosophy, have been appointed members of the Advisory Committee of the Centre.

ARTHUR PORTER

THE DIRECTOR OF THE GRADUATE CENTRE FOR THE STUDY OF THE DRAMA

Theatres

In the long run, perhaps the most significant achievement of the Graduate Centre for the Study of Drama during the year 1967-68 may prove to be the building of a Studio Theatre at 4 Glen Morris Street, just above Harbord.

Basic to the whole concept of a Drama Centre that is distinct from the teaching of dramatic literature in the traditional language departments is the belief that drama needs to be studied in performance, not merely as words on a page. However, to get the variety of production needed to train students to awareness of this dimension of a play, a theatre much less expensive than Hart House Theatre was needed, readily adaptable to all kinds of experiment, without elaborate equipment, and without inhibiting professional standards. Such a "space" was discovered in the former Russian Orthodox church on Glen Morris, which Sir Tyrone Guthrie pronounced perfect for the purpose. Besides conducting practical classes there, we plan to do at least eight productions in the Studio each year, exploring unfamiliar content and performance techniques in free "laboratory" conditions. There will be seating for about one hundred spectators, and all performances will be free.

In the Centre's other area of practical activity, Hart House Theatre, the four-phase renovation scheme is now half completed: phase II, the installation of new lighting equipment, was finished in December 1967; and phase III, the renovation of the auditorium and lobbies, is scheduled for summer, 1968.

Productions and Visiting Lecturers

The Centre's four Hart House productions for this year were Tom Robertson's *Caste*, directed by Brian Meeson and designed by Martha Mann; John Whiting's *The Devils*, directed by Peter Ebert and designed by Murray Laufer; Claude Aveline's *Brouart*, directed by Leon Major and designed by Les Lawrence; and Ibsen's *John Gabriel Borkman*, directed by Leon Major and designed by Martha Mann.

Standards of acting and production were very high (the *Telegram* called *The Devils* "the best university production I have seen at that theatre in many years"), but the season was not nearly so popular as that of 1966-67. This was largely because the choice of plays was distinctly academic, aimed at specialist rather than general audiences; and to avoid such a clash of interests in the future, we have asked the University to support three distinct areas of theatrical activity next year: studio productions, which are an extension of the Centre's scholarly concerns; Hart House productions of recognized classics, with largely professional casts; and independent student productions, both at Hart House and elsewhere.

This year the Centre had a small "pump priming" fund which enabled it to aid some ten independent student productions, including four medieval plays by the Poculi Ludique Societas, the vastly successful *Waiting for Godot* which began the year, U.C. Players' *Incident at Vichy* playing at the Colonnade, and several of the many Trinity College productions, including *Shadow of a Gunman* and Richard Reoch's original play, *Under the Sea to Sunrise*, which later moved into the Poor Alex.

Another original play, at Hart House Theatre, was *Young Hunting* by the playwright-in-residence, Martin Hunter, for whom the Centre received a Canada Council grant. Next term Mr. Hunter will collaborate in the Playwriting Workshop which Professor F. J. Marker is setting up as part of the practical programme. Like all the Centre's practical classes (acting, directing, voice, design), this is also open to interested undergraduates.

Besides its own five productions and ten sponsored student productions, the Centre also brought in two visiting companies for one-night stands: the Centennial Players at Hart House Theatre early in the fall, and a highly praised, sold-out performance by the Nomura Kyogen Company of Japan in the MacMillan Theatre of the Edward Johnson Building on March 7. The Nomura Company also gave a lecture-demonstration earlier in the day at Cartwright Hall, St. Hilda's College, which was one of seven such lectures brought in by the Drama Centre this year. Members of the Centre themselves contributed to a series about theatre space on CBC-FM.

Enrolment

Meanwhile, of course, the academic work of students reading towards degrees of M.A., PHIL.M. and PH.D., which is the main purpose of the Drama Centre, has been going steadily forward. Twenty-three graduates enrolled in the Centre this year: eight PH.D. candidates, two PHIL.M.'s, eleven M.A.'s, and two people doing make-up courses before entering the M.A. proper. Of these, five will graduate this spring: one PHIL.M. and four M.A.'s; the rest will continue their programmes; and there are some fifty applications already for next year.

Library and Curriculum

Library holdings in drama and the selection of courses offered by the Centre have both been expanded in 1967-68. Thanks to the generosity of Scarborough College, Professor Peter Moes of the French Department was able to devote one-third of his time this year to filling the most obvious gaps in our library collection; during May and June, we shall have a visiting expert, Professor Barnard Hewitt of the University of Illinois, investigating the exact state of our holdings and advising us on library policy for the next few years; and next session we are happy to welcome Dr. Lise Marker, ex-librarian of the Royal Danish Theatre, who will combine work in the library with teaching two new graduate courses in drama. Besides these, some six other courses have been added for next year; a required "History of the Theatre" course has been set up, to be taught in collaboration by some fifteen professors from various departments; and there are plans to exploit the Centre's potential for comparative drama by devising a series of joint seminars. Expansion and clarification of curriculum requirements will be our next main area of development.

In sum, the picture is one of healthy growth. Whether or not the theatre is dying commercially (as has, rather dubiously, been claimed), on the campus it is booming. The programmes of the Graduate Centre for the Study of Drama must still be considered nascent - still groping for their ideal form in the University of Toronto context; but whatever finally emerges, it will certainly be the product of enthusiastic interest and encouragement.

BRIAN PARKER

THE DIRECTOR OF THE CENTRE FOR LINGUISTIC STUDIES

The P.H.D. programme, having been approved in June 1967 by the Ontario Council on Graduate Studies, was adopted by the Senate in their first autumn meetings. Meanwhile, the teaching year had begun with enrolments which by the end of the year had stabilized at 5 P.H.D. candidates, 7 M.A. candidates, and one special student. The year 1968-69 is expected to begin with 11 P.H.D. candidates and 28 M.A. candidates, a considerable overload for the staff of 4.13 full-time equivalents.

The Dictionary of Linguistic Terminology brought by Professor H. A. Gleason, Jr., in the form of files worth roughly \$100,000 received a Canada Council grant towards completion in two more years and probably publication by the University Press. This acquisition makes it possible to add graduate work in Lexicography, making this University the only one in North America able to do this both practically and on the highest level of theory.

A complete set of five undergraduate full courses in Linguistics was added to the General Arts programme, to begin with 1968-69, and certain honours programmes (notably English Language and Literature) have added options from among them. For the next year or so, all this remains the responsibility of this Centre.

The School of Graduate Studies in June entrusted this Centre with the task of examining all P.H.D. candidates for their reading knowledge of French or German or both. The Centre's multiple-choice tests have enabled several profitable innovations. Examining in these two languages is done four times a year (instead of twice) and the results are reported immediately on a scale of 14 steps; each P.H.D. department has chosen its own required grade, from among four of the middle steps in the scale. This is regarded as ensuring the survival of the P.H.D. language requirement by rationalizing it.

MARTIN JOOS

THE ACTING DIRECTOR OF THE INSTITUTE OF CHILD STUDY

The present session marked the introduction of the first of the two-year course of studies leading to the Diploma in Child Study. The Diploma was first approved by the Senate in 1944 and until this academic session required one year of full-time residence. The conditions and rationale for extending this programme to two years of full-time residence were based on student need and carefully considered criteria for qualification for advanced work in the field of Child Study. The opportunity to have students in residence for two academic sessions provides distinct advantages for the staff, enables the students to become involved in our research programme and provides a broader base of study and preparation for the students. The next academic session will have for the first time students registered in the first and second year of the Diploma programme.

The research activities continue to place the major emphasis on the longitudinal study which has now taken subjects for six full years. These children remain in the school programme for nine years, during which period developmental data are obtained at predetermined intervals. A total of \$36,426 has been received in grants from the Ontario Mental Health Foundation, the Atkinson Charitable Foundation

and the Department of National Health and Welfare in support of this research. It is expected that separate research projects not directly represented in the longitudinal study will receive more attention in the next year or two. Experimental studies, particularly in the areas of motivation, language and reading skills, will be initiated by new members of staff, providing a wider range of research interests as well as short-term and long-term research projects.

Members of staff who work with the children in the laboratory school have undertaken new programmes in curriculum and educational practices. Children of the ages of six to eleven have been introduced to musical composition, musical theory and the development of musical instruments. Kindergarten to Grade 3 have experimented with a mathematics programme based on the Nuffield Project. The Grade 6 children wrote, edited and produced a weekly newspaper throughout the school year. Grades 2 to 4 have developed their own film strips based on field visits. Grades 5 and 6 produced a 35-minute colour/sound, 16-mm film based on an Indian legend. The story was written and the film was produced by the children.

The laboratory school is becoming increasingly important to our student programme. Students observe children's behaviour at various age levels very early in the programme and engage with the children in teaching, assessment and testing and appraisal practices as a continuing part of their studies. Work with children at this school provides a baseline for later observations and work with handicapped children and children resident in special settings. Over 60 schools, agencies, special education and treatment centres have been available for the students during this academic session.

The activities of the school continue to stimulate visitors who are interested to observe, study and implement some of our practices in their own educational settings. Approximately 250 educators from all boroughs of Metropolitan Toronto, Oakville, Burlington, Hamilton, North Bay, Peterborough, St. Catharines, the United States, Australia and England visited during the past year. Twenty-three Scarborough principals and inspectors planned an in-service programme based on visits to the Institute school, followed by Institute staff lecture series. Open House attracted 125 students and staff during a two-day period. Over 300 other persons requested visits to the school and were accommodated.

Three members who have had a long period of employment with the Institute resigned at the end of the current academic session. Professor Mary Northway joined the Department of Psychology, University of Toronto, in 1933 and later, the Institute of Child Study. Her research interests were primarily in children's social development and she achieved widespread recognition for her work in sociometry. Miss Flora Morrison, who joined the Institute in 1953, has also chosen an early retirement; Miss Morrison instructed in the Kindergarten programme of the Institute laboratory school. Mrs. Ormrod, who also instructed in the school, has joined the staff of Educational Television after eight years with the Institute.

New additions to the staff of the Institute for the next academic session include Dr. Otto Weininger, Dr. Andrew Biemiller and Dr. Peter Gamlin. Professors Biemiller and Gamlin completed their doctoral studies in Child Development at Cornell University. Professor Weininger received his PH.D. in Psychology at the University of Toronto in 1954 and has worked with children in a variety of educational and clinical settings.

The Institute received a grant of \$171,635 from the Department of Health of the Province of Ontario in support of educational services at Thistletown Hospital. Twenty teachers are employed in this programme which provides a setting for both research and student training.

The year has been significant in developing new directions for the future. New staff additions will introduce wider research interests for the Institute and add a more concerted and vigorous pace to short-term as well as long-term research. The opportunity to integrate traditional points of view and research goals of the Institute established during the past two decades with research strategies and behavioural

conceptualizations current to developmental and educational psychology is both exciting and precarious.

The Institute of Child Study has focused on mental health considerations related to the establishment of climate, interpersonal relationships and personal experiences as these contribute to healthy and productive growth in children and offer a prognosis of rich and fulfilling adult life. It would be unfortunate if the Institute relinquished this pursuit. However, theory building must continue to be strengthened and extended on sound experimental findings, and our resources, both human and physical, have not been sufficient to keep up with the need for research evidence. Policy statements regarding practices in the classroom and in the rearing of children in the home have been based on clinical and intuitive foundations, frequently lacking the support of any or sufficient research data.

On the other hand, the inclusion of programmes of research which identify variables highly remote from the life experience of the child, and which are certainly detached from providing any substance which can be relevant in assisting the selection of practices consistent with desirable outcomes in child development, can represent a new form of poverty and futility in terms of the needs that exist today. The challenge for the Institute is to continue its respect for and responsibility to the problems of the engineer in the classroom and in the home, and to strengthen its own resources and competence in searching for new evidence and new understanding important to the scientist in the laboratory.

A further responsibility must be noted. The education and training of senior students in the field of child development cannot be postponed indefinitely. If the teaching, service, and research centres in this country remain unmanned, it will be because we do not provide the opportunity for formal graduate work which is required. The failure to have even one university in this country staffed to provide the Master's and Doctoral programmes in Child Development is to be blamed on the Institute of Child Study more than on anything else. This goal must not be further diverted. The importation of Ph.D.'s in Child Development from training centres in the United States is not unacceptable, but is certainly not sufficient. The extension of our present student programme to include Master's and Doctoral courses of studies is only a small distance away in terms of additional staff requirements. It is a fervent hope of this Institute that this distance will be shortened by the time of writing the next annual report.

M. F. GRAPKO

THE DIRECTOR OF THE INSTITUTE FOR AEROSPACE STUDIES

The Institute's programme of space research has attained a high degree of development. Facilities for the complete instrumentation of rocket nose cones are now available. Current UTIAS rocket experiments required extensive design work on the nose cone to provide a novel, ejectable, but vacuum-tight unit. Tests have proved the concept to be reliable and the design has been adopted by other organizations. In line with our policy of providing assistance to other research groups, the Institute has constructed this new nose cone for other Canadian universities. In co-operation with the Canadian aerospace industry the Institute has prepared a proposal for a survey satellite to study Canada's natural resources, based on fundamental and applied research already completed in the Institute's laboratories and on existing technology available in industry. The Institute is also co-operating with an American aerospace company in a preliminary study of techniques for the measurement of planetary

atmospheres using space probes. The Institute possesses the special laboratory facilities needed for the investigation and development of appropriate instrumentation.

In Report No. 1 on "A Space Program for Canada" published in 1967, the Science Council of Canada called for "an integrated approach to the understanding and utilization of space for the greatest advantage of the Canadian people." One of the important recommendations was for the establishment of "new communications network based on satellites" capable of reaching "the remotest Canadian communities for telephone, television and data transmission services." Subsequently, the Department of Industry issued a white paper on "A Domestic Satellite Communication System for Canada" in which the establishment of such facilities was considered in detail. As part of a survey of the Canadian capability to undertake such a project, the Institute demonstrated competence in the following areas: satellite dynamics, ultra-high vacuum techniques for the testing of components and complete satellites, laboratory simulation of the effects of the space environment on practical satellite surfaces, space power generation and satellite station-keeping propulsion systems. Research on the dynamics of earth satellites has been active at UTIAS since 1962 and much of it has been directed precisely to the problem of attitude stabilization of equatorial, synchronous satellites. Current projects include studies of gravity-gradient stabilization to provide earth-pointing attitude control with emphasis on penalties associated with non-coincidence of the centre of mass and the centre of solar pressure, and the development of a thin wire configuration to replace conventional "booms" to minimize perturbations due to solar pressure. Since 1961 an extensive experimental research has been conducted at UTIAS on dynamical effects due to interactions between satellites and the space environment. This has involved the use of molecular and ion beams to simulate the effect of particles in the upper atmosphere, permitting studies of satellite drag, orbital decay and attitude-perturbing torques. The effect of micrometeoroid impacts on the useful lifetime of a communication satellite also forms part of this study of the interaction of a vehicle with the space environment. In 1964 a programme was initiated to construct a large magnetogasdynamic facility for the investigation of broad areas of space proven generation and plasma propulsion. A 3-megawatt facility, the largest in any university and superior in some respects to equipment in the national laboratories of most major countries, has been brought into operation and is now being used for the study of basic problems associated with the flow of electrical energy to and from a dense plasma.

The term aerospace refers to the astronautical and aeronautical sciences. Since its establishment in 1949 the Institute has given equal emphasis to both fields. On the other hand, the procedures for obtaining support for mission-oriented, aeronautical research and development in Canada have been unsatisfactory and an extensive review of the problem has been needed for some time. It is encouraging that the Science Council has now undertaken such a study.

The Institute is internationally recognized for its contributions in the fields of hypersonic flight, dynamics of flight, aerodynamic noise and solid mechanics. The design of the UTIAS implosion-driven, hypervelocity launcher for the study of hypersonic flight including planetary entry has been completed and forwarded to appropriate manufacturers for construction bids. This design, based on many years of research and development, is a new concept intended to provide launcher performance superior to any now in existence. The objective is to launch a model weighing 13 grams, having a diameter of about 2.5 cm at speeds up to 15,000 m/sec. The success of this project will depend on whether model integrity can be preserved in million to billion g-loading regimens and whether losses arising from radiation, conduction and friction can be controlled. In the field of flight dynamics work is proceeding on aircraft response to turbulence with emphasis on wings and propellers. Experimental investigations are being conducted on a new kind of ejector-driven, turbulence-controlled, wind tunnel which permits a more extensive study of turbulence effects on aircraft. Work in the area of human pilot dynamics is nearly complete. Studies of the physics of aerodynamically generated sound have been continued. The Institute was selected as the location for an international, invitational

meeting on aerodynamic noise. Papers on the fundamentals of flow generated sound, noise abatement and the sonic boom were presented on May 20, 21, 1968. Progress can also be reported on our efforts to understand the buckling of shell structures and stress wave propagation under dynamic loading.

Closely related to our aeronautical activities is a new programme of work in air transportation. A graduate course on this subject has been prepared and a research project is under way. It will attempt to establish, using a sample of 5,000-10,000 passengers, the geographical distribution of origin and other demographic data for air travellers departing from the Toronto International Airport at Malton. Our aim has been to establish a basis for forecasting the potential role of short haul feeders to Malton.

The reader is referred to the UTIAS Annual Progress Report for full details on the research programme. About 2,500 copies of this annual report are mailed out each year. More than one hundred projects are in progress, supported by ten funding agencies.

The Institute's steadily growing co-operation with industry has already been indicated above in statements relevant to the space programme. It is our view that an active exchange between UTIAS and local industry is essential if each is to perform its proper role. In a study by the writer for the Canadian Research Management Association on "The Role of the Research Institute in University-Industry Cooperation," it was concluded that co-operation could be effectively improved by (1) the establishment of a formal relationship to facilitate an easy exchange of information, facilities and staff, (2) the choice of courses and liberalization of the requirements for advanced degrees to include specific arrangements with industry, and (3) the introduction of many more co-operative research projects to promote personal contacts and emphasize the needs of industry. Progress has been made in all three areas: the writer was elected a director of a local aerospace company; the UTIAS course leading to the degree of Master of Engineering is attracting the participation of industry; co-operative space projects have been initiated.

It is the firm belief of the staff of the Institute that the aerospace sciences are important to Canada's future. Every effort is made to promote the subject at the national level through such activities as membership of the Science Council of Canada, a presentation to the Senate Special Committee on Science Policy, and representation on every technical committee on the subject in Canada. On the international scale, the Institute represents Canada on three technical committees in the United States, participates regularly in closed meetings on aerospace research policy in that country, and is presently represented on the advisory committees of two international symposia.

G. N. PATTERSON

THE DIRECTOR OF THE GREAT LAKES INSTITUTE

The present year is the tenth for the operation of the *ccgs Porte Dauphine* on the Great Lakes and the eighth since the Institute was attached to the University. During this decade and particularly in the first years of it, much of the effort was devoted to synoptic monitoring of lake parameters on a regular and year-round basis. As a result, the Institute has provided the most consistent and continuous body of basic information on the Lakes, in particular the lower Great Lakes. This information is at present being utilized as the basis for much of the planning for the International Field Year on the Great Lakes to be undertaken jointly by all Canadian and

United States research bodies in 1970 under the auspices of the national committees for the International Hydrological Decade.

With the rapidly developing capability of the Canada Centre for Inland Waters to undertake basic data collection, the Institute has been able to devote more of its resources to specific studies of lake phenomena and more detailed investigations of their hydro-physical behaviour. The Council of the Institute appointed Dr. G. K. Rodgers as Head of the Physical Limnology section thus providing senior scientific supervision in this area of research. The Associate Directors, Dr. F. E. J. Fry and Dr. P. H. Jones, continue to supervise the research in Biological Limnology and Engineering respectively.

At the Baie du Doré field station the facilities were enlarged by the addition of a small lecture *cum* recreation hall. A team from the National Research Council has placed a very deep (145-ft) water instrumented tower some six miles off shore. This together with the Institute towers and platforms at the Baie provides a unique array of fixed observation points of greater extent and diversity than has been achieved before. Simultaneous continuous observations are providing information that is unobtainable from isolated or random observations. The resignation of Dr. P. A. Peach from the staff of the University of Toronto does not affect the operation of the field station since he has arranged to continue supervising the activities there.

During the year, the Institute initiated and, with the support of interested departments in the Faculties of Arts and Science and Engineering, has won approval for the concept of a laboratory for environmental science and engineering. This has resulted in the allocation of 15,000 square feet of existing space which it is hoped can be suitably adapted to our multi-disciplinary needs during the next year. The Institute has also developed a well-equipped mechanical workshop adjacent to this assigned space which will be part of the facility shared by the various groups located there.

After due consideration the Council of the Institute decided not to proceed with the establishment of a diploma course in aquatic science and engineering at this time. It is hoped that the early establishment of some more formal and recognizable structure for the conduct of environmental studies within the University will allow the implementation of degree programmes. In the interval the Institute will continue to provide instruction and support facilities for students registered for degrees in the existing departments and schools. It will also continue to provide major facilities for the use of staff and students at the other Ontario universities.

Co-operation with other agencies dealing with water as a resource and as an environment is arranged by means of the Great Lakes Working Group of the Canadian Committee on Oceanography. This is composed of representatives from federal and provincial departments and from other Ontario universities. The Institute has participated in five major co-operative or joint programmes. The Institute has undertaken the editorial and publication responsibility for the International Association for Great Lakes Research and its directors and staff continue to serve on numerous national and international bodies concerned with matters of aquatic science, water management and conservation.

A. D. MISENER

THE DIRECTOR OF THE INSTITUTE OF COMPUTER SCIENCE

The Dispatcher Computer Network

In spite of delays in preparation of the site for the computer, problems with software development and difficulties in obtaining staff, the new computer facility has

become operational. At the end of June, even though the configuration was not fully installed, it already contained seven interconnected computers: the IBM s/360-50 acting as a Dispatcher to collect and schedule jobs, the s/360-65, and the 7094 II serving as processors to carry out computations, and s/360-20's at McLennan Physical Laboratories, Sidney Smith, Scarborough, Erindale, acting as terminals for remote job input and output. In addition, there were ten typewriter terminals serving as the nucleus of a time sharing network which later will be coupled to the Dispatcher System. This system, the largest and the most complex in the country, will undoubtedly be the backbone of the University computing facility for some years to come.

Delays in the preparation of the computer site in the Sandford Fleming Building meant that the 7094 and the s/360-50 computers could not be moved into their new positions until October. Further, the problems were aggravated by chronic difficulties with air conditioning; it was not until April that the air conditioning system performed at even a minimum level of acceptability. (In May, plans were made to provide sufficient reserve capacity for stable operation.) Delivery of the terminals for McLennan, Scarborough and Erindale was also accepted in October. Initially, these could not be connected to the Dispatcher, and they operated as stand-alone card readers and printers until April.

Not all the difficulties in implementing the Dispatcher system can be ascribed to problems with the site. The software package, written for the Dispatcher, is the largest set of programmes ever to be developed at the University, and, in common with other large developments of this type, we found it impossible to maintain our implementation schedule. In appreciable measure this was due to continuous changes in the hardware which, although anticipated, nevertheless resulted in inevitable delays in programme testing. In December the memory of the s/360-50 was expanded from 256 K to 512 K bytes; in January the 2702 Communication Control for the 2741 typewriter terminals was added; in April the 7094 was relocated from the Sandford Fleming Building to the 12th floor of the Burton Tower (at this site it is now operated remotely through coaxial cable and high speed data links, in a mode which is unique for the 7094). The first release of the Dispatcher's software was in March. This was for a simplified system which did not use remote terminals, but only the three on-site high-speed printers and readers.

During these changes there was no extended shutdown of the computer, but unavoidably there were many occasions when service was suspended for one, two or even three days, and our users were sorely tried, for throughout all of this the demand for computer service continued not merely as before but at a greatly increased level. Besides the steadily growing volume of research on the 7094, many users were anxious to apply the new programming languages and systems available on the 360 series machines. To a limited extent, it was possible to give them access to the s/360-50. In addition, there were new courses in which problems requiring the computer were assigned as a regular part of the work. The greatest strain from these arose from a compulsory course in Computer Programming which was introduced in the second term for all first year students in the Faculty of Applied Science and Engineering. Although it was recognized that this course would create a heavy demand, the full measure of the increased load was not anticipated. The number of computer jobs processed in February, March and April 1968 increased by one hundred per cent over the number for the same period last year. During the peak months there were some 40,000 jobs processed, or about 2,000 per working day. This volume placed a severe strain not only on computer availability, but also on supplies, and most especially on the staff required to deal with the flow of work. Extra staff, space and other facilities were provided by the Faculty of Applied Science and Engineering and by the Department of Physics to cope with the flood. One of the most important effects, however, was the realization that a new organization was needed in manpower, job flow and systems management to enable the Institute of Computer Science to handle such a load, for it was recognized that this volume was not temporary, but

only the forerunner of the demand that will arise as more and more undergraduate courses are based on computer use.

Fortunately, even the preliminary version of the Dispatcher releases, using the on-site reader and printer terminals, utilize the 7094 much more efficiently than has hitherto been possible. In May, when the volume had abated somewhat and the preliminary system had been tested reasonably well, there were dramatic increases in performance. The turn-around time, which had increased to 36 hours and even longer, was brought back to approximately four hours or less for those jobs which could be handled through the automatic Dispatcher System. In June the remote Model 20 terminals were put in tentative operation and at the same time the s/360-65 was acquired as a second processor. With these additions the core of the Dispatcher operating system was put into service, although it was clear that there would have to be an extended shake-down before a thoroughly reliable system could be achieved. Nevertheless, by the end of June there was sufficient evidence to show that the system would undoubtedly be able to operate as planned, and eventually be capable of delivering both the volume through-put and the high performance in turn-around that has been expected of it.

Along with the growth of the main computer system, there have been substantial additions to the supporting facilities and services. In October the magnetic tape library was completely reorganized, and hundreds of new tapes, a full-time tape librarian, and careful labelling and regular tape cleaning were introduced; in February a system based on a PDP-8 computer, for converting paper tape to magnetic tape was installed; in May the CalComp Plotter System was replaced by a faster Model 570 tape transport, and a wide carriage plotter. These three changes alone cost over one hundred thousand dollars. In June a closed-shop card-handling facility was set up, comprising a new reproducer, a collator and verifier. All of these, along with the major increases of staff outlined below, have contributed to a more systematic operation, more capable of dealing with the high volumes of jobs and users.

Staff

The evolution into a computer network, with three large-scale computers and many peripheral devices, located in different buildings, led the Systems Manager, Mr. Ford, to a major reorganization of the operating staff. Detailed descriptions of job responsibilities have been drawn up. In doing so, it has been necessary to abandon the relatively informal procedures we have had at the University, and to introduce professional practices more like those at the Ontario Hydro and Imperial Oil. To indicate the changes, there are now at the Institute of Computer Science the following positions: Laboratory Attendant, Computing Assistant, Computer Operator, Crew Chief, Chief Operator, Data Services Supervisor, Programmer, Systems Programmer, Chief Programmer, Systems Manager, and Planning Manager.

In drawing up the 1968-69 budget, it was realized that the ics staff would have to be doubled from its 1967-68 level of about 30. In fact it was necessary to fill many of the new positions in the period from March to June, when the new computers came in. All of this required vigorous recruiting and a great deal of retraining of the staff we already had. The recruiting showed the need for substantial revisions in the salary scale for the operating staff to meet industry salary levels. By June, the main staff structure had been settled, and in fact most of the new staff members were hired. This was no little task, and I would like to acknowledge the effective efforts of the Personnel Department of the University in conducting surveys, placing advertisements, interviewing and recruiting generally.

Not only the operating staff, but the programming staff as well, had to be increased, although here most of the additions were made at the beginning of the year, since they were necessary to carry out programming for the Dispatcher System. The Planning Group was increased by four Systems Programmers and the Operating Group by three. We felt a real loss when, in May, Mr. Creemer resigned as Planning Manager. Mr. J. R. Swenson, who has had considerable experience in large-scale

computer installation at New York University, replaces Mr. Creemer from July 1, 1968.

Planning and Policy

The major changes in the installation and staff have been accompanied by intensive activity in planning and policy formulation. There are no fewer than three committees, operating at different levels, namely the Advisory Committee of the Institute of Computer Science, the Computer Services Subcommittee of the Committee of Presidents of the Universities of Ontario (CPUO), and most recently, the Ad Hoc Computer Committee (reporting to CPUO and to the Committee on University Affairs).

The Advisory Committee has concerned itself with the general policy for support of computer facilities in Canadian universities, the specific form of the ics facility, and specific recommendations on management, staffing and services for ics. On the first topic Professors A. Porter, D. G. Hartle and T. E. Hull prepared a brief on "Computer Facilities in Canadian Universities" for submission to the Science Council of Canada. In this the computer needs of the country were assessed and a case for the acquisition of large computers was made. During the year, a great deal of attention of the Advisory Committee was focused on the equipment needs for the University of Toronto. The Committee recommended the acquisition of an IBM s/360-44 to meet the requirements for real-time computing and system development which had become urgent in the Faculty of Applied Science and Engineering and in other places within the University. In April, on the advice of the Planning Subcommittee, the order for an s/360-75, which was to have been the central processor in the Dispatcher System, was changed to an s/360-65, and an order was placed for an s/360-44. In the configuration as now planned, the Model 65 (replacing the 50) and the Model 44 will arrive in January 1969. The Allocation Subcommittee, chaired by Professor Hume, has been responsible for the departmental allotment of C\$'s, to be used against the purchase of 7094 and s/360-65 computer time.

Without doubt the most important influence on the level of computing activities at the University of Toronto has come out of meetings and recommendations of the Computer Services Subcommittee of CPUO. This subcommittee was charged by the Presidents with the task of making recommendations on the development, co-ordination and financing of universities' computing services. It met with members of the Committee on University Affairs and prepared two major reports on behalf of the Presidents, which were forwarded to CUA. As a result, for the first time, the Province of Ontario undertook general support of university computer facilities as a matter of policy, and in the provincial 1968-69 budget 4.5 million dollars was allocated for computer equipment. Of this, up to \$24 per basic income unit was allotted to each university, and the remainder was designated for the first of a number of Regional Computer Centres which will eventually serve the universities. It was further agreed that the support of the university computer centres will continue until and beyond the establishment of Regional Centres. The immediate effect of this policy at the University of Toronto was that approximately one million dollars became available in 1968-69 for new hardware, and there was reasonable assurance that this would continue to be available for some years. As a result, the Dispatcher configuration described above was recommended, and firm orders for the equipment were placed. Most of this equipment had arrived by the end of June, and the remainder, as indicated above, is due in January 1969. The computer complex is smaller in size than some which had been considered during earlier discussions of the Planning Subcommittee; in particular the Model 75 has been reduced to a Model 65 and the very preliminary consideration which had been given to an even larger machine has been shelved. Nevertheless, in my opinion, this system, which has in total a capacity at least four times that of the 7094 II, will be sufficient for the needs of the University for several years, provided - and this is an important proviso - we adopt a policy whereby those who require computer services pay for them in real dollars. This point is developed below at greater length.

The Ad Hoc Committee of Computer Services was appointed by CPUO and CUA to examine and make proposals concerning Regional Centres and it was organized at the end of June 1968.

Problems

A number of important problems face the Institute of Computer Science during the next year and after. First among these is the need for consolidation, for building a reliable and efficient service based on the major new systems which have been introduced this last year and which are to come shortly. Here it should be noted that the quality of service, as measured by turn-around time, and the information provided to users in the form of programming documentation, newsletters and programming advice, are just as important as the quantity of computer time made available. In improving these latter features the Users' Service Group, formally started in July 1968 will be especially useful. However, the most important result of consolidation must be to provide a *reliable* service, and the standards here should be those found in public utilities such as hydro-electric and transportation services. To achieve such standards it will be necessary to pay a great deal of attention to factors such as hardware redundancy, peak loads, recovery procedures, and programme protection.

Another problem, and one which will definitely have to be resolved in the coming year, is that of computer charges. At present, users of University computer services indicate their needs by presenting requests for computer time. Although they are required to pay for this time in C\$'s, which are rationed, there is no method of comparing C\$'s to other resources. Thus, computer needs are not related to other needs, and it follows that computer time is essentially a free resource which carries no charge for use. During the discussions with the Committee on University Affairs described above, the Committee made it plain that although it was undertaking to provide support for computer facilities in Ontario Universities, the continuation of this support would be justified only if a system of real dollar charges for computer time emerged. Thus there is great pressure, and for good reason, to introduce realistic charges as soon as possible. Although there has always been a reasonably careful system of assigning computer time to departments in the University of Toronto, and this system has been made more exact with C\$ rationing, the introduction of real dollar accounting will undoubtedly require careful planning and programme development. This is so not only because there are many factors which can affect the computer rate, e.g., turn-around time, block-time charges, differential charges to different users, etc., but also because there are many services besides computer time for which charges should probably be levied, e.g., disk storage space, printing output, plotter output, and card reproduction. Difficult as the conversion to real dollar charges may be, the result will undoubtedly be a more rational operation.

The problem of space, although not critical immediately, will not go away. It is becoming increasingly clear that eventually the ics computers must be housed in a new building in an area especially designed for them. The immediate space requirements for ics have been met through the co-operation of various departments in the Faculty of Applied Science and Engineering, which have allowed ics machines and staff to expand into previously committed space in the Sandford Fleming Building. Naturally, they look forward to the time when they can reclaim their own. Equally important, the problems with air conditioning, building access and physical layout have shown the need for a specially designed computer site. The prospects for a new Science Building, where ics was to have been housed, seem to have receded recently. Although the computers can continue in their present location for a while, it is certain that the reliability and quality of service which have been envisaged above cannot be provided in the present quarters.

Acknowledgments

Again, I would like to acknowledge the important support from the National Research Council of Canada in providing a major grant for support of computing

facilities. Finally, I would like to acknowledge the continued co-operation of IBM, not only in the form of their educational allowance for computer equipment, but also in their valuable contributions of manpower towards the Dispatcher Project.

CALVIN C. GOTLIEB

THE DIRECTOR OF THE INSTITUTE OF BIO-MEDICAL ELECTRONICS

This year has seen the Institute of Bio-Medical Electronics return from temporary exile in the Sandford Fleming Building to its original quarters in the Electrical Building – with the difference, however, that the facilities have in the meantime been improved to include modern physiological, biochemical, and engineering laboratories and classrooms. Research is carried out here by ten PH.D., eleven M.A.SC., and three M.ENG. candidates.

The students are supervised in their researches by six scientists, five of whom hold academic appointments, and whose combined skills cover the areas of engineering, physics, mathematics, medicine, neurosurgery, physiology, etc. Next year an organic chemist will join our staff and thus increase our strength in that area. Supervision is also given by some 14 members of the Institute who hold appointments in many of the life science and engineering departments. There is a supporting engineering and technical staff of 9, and interestingly enough, one of these is an M.D. who has accepted a technical position in order to gain engineering experience.

We are continuing with five graduate courses designed especially for our students and have added one seminar course for medical students. A major step has been made by offering a half-course option in bio-medical engineering to students in their fourth year of Electrical Engineering. It is hoped that in future years this can be made available to all engineering students, thus enabling them to “sample” bio-medical engineering, and also providing a broader framework of reference for those who elect to continue in the field.

Highlights of the year’s researches include the development of a neural impedance probe which is now in clinical use, a new gamma-ray camera for cancer diagnosis and other radioactive tracer applications, and an “artificial pancreas” which, though still in an early stage, shows great promise.

In order to promote better exchange of scientific information between widely separated research centres, the Institute was host to scientists from a variety of countries such as Japan, France and the USSR. In addition, interested people closer to home were able to visit when the Institute held its Open House in November. Time has also been devoted throughout the year to the vast preparations for the Second Canadian Medical and Biological Engineering Conference that the Institute is organizing for September 1968.

N. F. MOODY

THE DIRECTOR OF THE INSTITUTE FOR THE HISTORY AND PHILOSOPHY OF SCIENCE AND TECHNOLOGY

The establishment of this Institute was approved by the Board of Governors on October 26, 1967, an action which formally recognized the state of growth of a

programme established and fostered by the Presidential Committee on the History and Philosophy of Science. The Chairman of that Committee was additionally appointed Director of the Institute in March 1968.

During the year 1967-68 the core staff of the Institute (i.e., the three staff members essentially working full-time in the field) conducted four graduate courses which attracted twenty-five students, the majority of whom chose the field as an outside minor for the PH.D. degree. Two undergraduate courses were given as Religious Knowledge options under the joint aegis of the Departments of History and Philosophy and a third course on the History of Technology and Engineering was given under that of the Department of History to students in the Faculty of Applied Science and Engineering. Roughly four hundred undergraduates enrolled in these courses.

In preparation for an expanded programme of graduate work, a further group of twelve interested faculty, whose research interests fall within the field of the Institute, has been assembled as Affiliates to the Institute. A number of these will be cross-appointed to the Institute, and all will be available to supervise advanced degree candidates and assist in other graduate instruction. A number of related courses given by these Affiliates are to be cross-listed in the Calendar of the School of Graduate Studies. Including these courses, the proposed graduate offerings for 1968-69 will number twenty.

The Institute is in the process of preparing, for appraisal, graduate curricula leading to the degrees of M.A. and PH.D. Currently, students may enter the field through established departments, but it is anticipated that a co-operative interdisciplinary programme under the Institute will come into effect in the coming year. Further expansion of both core staff and Affiliates will relate to an expanding programme.

The University of Toronto is fortunate in having the basis for a strong supporting library in this field. Augmentation of research resources is under way with aid from both the University and the Canada Council. Outstanding collections relating to Galileo, Darwin and Hobbes have been joined to the Library and further acquisitions are supporting the Institute's interest in these men and in the sixteenth century. A collection of pharmacopeia has been acquired to aid research in the History of Pharmacy.

With the generous assistance of the Varsity Fund, the Institute has been able to continue the lecture series on the History and Philosophy of Science by leading authorities in the field. The lectures, open to the University Community, are followed by seminars conducted for students by the lecturers.

Members of the Institute played host to the Annual Meetings of the History of Science Society and the Society for the History of Technology, both of which met in Toronto between Christmas and the New Year.

JOHN W. ABRAMS

THE DIRECTOR OF THE INSTITUTE FOR THE QUANTITATIVE ANALYSIS OF SOCIAL AND ECONOMIC POLICY

The Institute for the Quantitative Analysis of Social and Economic Policy, known popularly as the Institute for Policy Analysis or more simply as IQASEP, was established by the Board of Governors of the University of Toronto in the spring of 1967.

Purposes of the Institute

Traditional research in the social sciences primarily required the time of an able scholar, a quiet place for him to work and a good library. This situation has been radically changed, for these are necessary but no longer sufficient prerequisites to much of the new quantitative research work. In addition, the investigator now requires ready access to a powerful computer, the services of highly trained computer programmers, clerks, keypunch operators.

With the exception of computer time, these supporting services have not generally been provided by Canadian universities or have been provided on a wholly inadequate scale. The result has been that Canadian universities have found it difficult to attract and retain qualified staff because competing American universities offer better research facilities. Nor has this been the sole effect of the paucity of research facilities on campus. There has been little opportunity for graduate students to obtain the important part of their training that comes through participation in faculty research in this rapidly expanding field.

The Institute seeks to provide adequate permanent facilities for carrying out quantitative research on campus. Only with these facilities can the University maintain a highly qualified academic staff working with graduate students on campus in the field of quantitative analysis and offer a high quality graduate programme in many fields within the social sciences.

The computer breakthrough makes it possible to carry out more efficiently research activities contemplated in the past; in addition, more ambitious research projects can now be conceived. Specialists from a wide range of fields and disciplines can fruitfully work together in pursuit of common research interests. The Institute seeks to provide the organizational framework within which research projects conceived by groups of faculty members can be co-ordinated and administered, together with a permanent clerical and programming staff for the use of those engaged in such projects.

The recent developments in quantitative analysis in the social sciences mean that policy makers can be supplied with much more relevant and timely information on which to base their decisions. To be helpful, however, the analyst must be fully conscious of the issues that are to be considered and informed about the environment in which they are to be made. A continuing exchange of information between policy maker and policy investigator is therefore essential. The Institute seeks to encourage a close relationship between government and business decision makers and those engaged in policy research within the University.

The general purposes of the Institute are, therefore, twofold:

- (a) To encourage continuing on-campus quantitative research in the social sciences that complements the development of a programme of graduate training.
- (b) To establish close relationships with decision makers within government and business so that the research undertaken yields relevant and timely information.

Organizational Structure

The Institute is under the jurisdiction of the Council of the School of Graduate Studies.

The Director is appointed by the President, on the advice of an *ad hoc* committee, for a term of five years. The current Director is Douglas G. Hartle, who is a member of the staff of the Department of Political Economy.

The operating policy of the Institute is the responsibility of the Executive Committee. The Executive Committee must approve, among other things, Institute research projects, budgets and requests for funds.

The present Executive Committee, as approved by the Council of the School of Graduate Studies, includes the Director of the Institute and the following members

of the faculty: John Bossons, Department of Political Economy; Donald J. Clough, Department of Industrial Engineering; A. Rodney Dobell, Departments of Mathematics and Political Economy; Harry C. Eastman, School of Graduate Studies and Department of Political Economy; Richard W. Judy, Departments of Computer Science and Political Economy; John A. Sawyer, School of Business; Thomas A. Wilson, Department of Political Economy.

An Advisory Committee, to meet once a year in Toronto, is asked for guidance on such matters as the feasibility of proposed major research projects, potential sources of funds, and the desirability of publishing completed studies.

The following individuals serve on the Advisory Committee: Harry G. Johnson, London School of Economics and University of Chicago; John R. Meyer, National Bureau of Economic Research and Harvard University; Guy H. Orcutt, International Bank for Reconstruction and Development; Arthur J. R. Smith, Economic Council of Canada; Henri Theil, University of Chicago.

Membership in the Institute is open to all who have participated in a research project carried out under Institute auspices within the previous twelve months. Institute members are known as Research Associates. Membership is not restricted to the faculty of the University of Toronto, but encompasses members of the faculties of other universities, those holding short-term appointments at the University of Toronto, and graduate students who hold full-time appointments in the Institute.

Budget

After it becomes established, the Institute will be, to all intents and purposes, a self-sustaining organization within the University. While the University will provide space and cover the general overhead, the bulk of the funds will come from research contracts and grants. This implies that the Institute must recover the full costs of all research work conducted under its auspices.

The Institute hopes to obtain uncommitted funds that can be used to finance research projects originating entirely within the University. Until this goal has been reached, the Institute can only provide faculty members with research facilities and services when specific outside sources of funds have been obtained to finance them.

In 1968-69 the Institute will obtain about \$500,000 in research support from outside the University for several projects.

Publication Rights

Because it is the aim of the Institute to build up and disseminate knowledge, the publication of research results is encouraged.

Normally research work is undertaken within the Institute only when those financing it agree either to publish the results without change under the author's name or to relinquish publication rights to the author. The Institute guarantees not to disclose information provided on a confidential basis.

Initiation of Projects

The Institute strives to bring to the attention of potentially interested members of the faculty research topics for which financial support is available. However, it is obvious that the Institute can play only a limited initiating role. The Institute is anxious to consider research proposals from groups of faculty members with a common interest in a research topic that might be undertaken within the Institute. In assessing whether or not a particular project should be carried out under Institute auspices, the following considerations are taken into account: (a) use of Institute facilities; (b) effects on University staffing and graduate education; (c) feasibility within the time and resources available; (d) responsibility of the faculty member undertaking direction of the project.

Teaching Role

The Institute offers seminars and workshops from time to time on subjects related to the research projects being carried out within the Institute. It is hoped

that these seminars and workshops will lead to greater interaction between staff and graduate students and between those within the University and those in government and other institutions.

Opportunities for Graduate Students

The Institute employs a number of graduate students as research assistants on a part-time basis during the academic year, and on a full-time basis in the summer months. It also expects to provide a limited number of grants to highly qualified graduate students who would undertake specific segments of larger research projects as PH.D. dissertations or M.A. theses. Students interested in working within the Institute in either capacity who are presently enrolled in the Graduate programme at the University of Toronto, or who are contemplating enrolling, should write to the Director.

Research in Progress

Work in the areas described below is being conducted within the Institute, or will be undertaken in the near future. The areas of research interest will change, of course, as the Institute grows.

1. An econometric model of the Canadian economy
2. The effects of changes in the tax structure on saving, investment, international capital flows and the balance of payments
3. Comparative industrial efficiency
4. Estimates of the effect of tax structure changes on provincial revenues
5. Effects of changes in the tax structure on asset prices
6. Capital market equilibrating processes and the specification of security valuation models
7. The costs and benefits of policy autonomy in an interdependent economy
8. Economics of higher education
9. Cost/benefit analyses of medical services
10. Effects of securities regulations
11. Fiscal policy in a federal state
12. Quantitative analyses of stabilization policy
13. Public expenditures and public goods
14. Wage/price problems

Outside Sources of Support in 1968-69

Project	Sources of support	Amount (× \$1000)
Econometric Model of Canadian Economy	Corporate Donors	22
	Federal Dept. Manpower	9
	Canada Council	24
Economics of Higher Education	Ford Foundation	250
Study of Canadian Appliance Industry	Federal Dept. of Industry	80
Canadian Government Expenditure	Canadian Tax Foundation	45
Economic Interdependence and Policy Autonomy	Canada Council	60
Equilibrating Processes in the Capital Market	Canada Council	23
Impact of Carter Tax Proposals if Adopted in U.S.	National Bureau of Economic Research, New York	45
		558

DOUGLAS G. HARTLE

The Libraries

THE CHIEF LIBRARIAN

A Computer for the Library

One of the highlights of the year was the University's decision, late in May, to order a computer for the Library. Dr. Gotlieb of the Institute of Computer Science had recommended earlier that the Library should have its own equipment to look after its need for operating time as distinct from experimental time which could be provided by the Institute. With the help of professional consultants, and Dr. Gotlieb's advice, we issued specifications to the principal manufacturers and selected the proposal which came closest to fitting our needs. As a result, we look forward to installation of a Sigma 7 system in January 1969. We shall then be in a position to begin implementing our plans for an on-line circulation system, an on-line record of serials, and other operations which can be integrated with the development of a "reactive catalogue" on which Ritvars Bregzis and his associates have done important work.

Space

The computer will occupy temporary quarters at 175 Bedford Road, a mile north of the campus. This building, when it was occupied at the beginning of the year, became the Catalogue Department's fourth home in four years, and will have to be the last before the new library is ready. The building is shared with the Systems Development Office, the Serials Department, and the Scarborough and Erindale Technical Services Department. Other rented quarters a mile east of the campus became the temporary home of Rare Books and Special Collections. It is, of course, difficult for all these departments to operate so far from the Library. Meanwhile, at the central building, several smaller moves and alterations were made to enable the remaining departments to carry on somehow until relief can be provided.

Working drawings for the Humanities and Social Sciences Research Library were completed, and at the end of the year we were ready to call for bids.

Growth of Collections

The number of catalogued titles added to the Central Library during the year was 72,375 or 26 per cent more than ever before. Additions to all libraries in the system (excluding microforms, maps, and phonodiscs) were 270,276, bringing the total holdings of the system to 2,802,711. The distribution as of June 30 is shown in the table on page 126.

These figures include documents and reports which have been processed for use without cataloguing. They do not include 67,718 maps in the Map Library and the Museum, or 10,000 sheets of music and 26,845 L.P. phonodiscs in the Music Library. Neither do they include 356,835 reels and sheets of material in microform, which used to be counted (in a different way) within the general total. To complete the tally,

	Vols. added 1967-68	Total vols.
Libraries of federated, affiliated and related institutions	44,994	490,524
Departmental libraries, omitting volumes on transfer from the Central Library	32,132	538,910
Central collection, including transfer to departmental libraries	169,897	1,630,597
Library System, St. George Campus	247,023	2,660,031
Scarborough and Erindale	23,253	142,680
U of T Libraries Grand Total	270,276	2,802,711

we should also take some account of 128,000 new additions to the holdings which now exceed 2.6 million items at the Center for Research Libraries in Chicago, since our University is one of the corporate members of the Center.

Use of the Central Library

Despite the growing congestion, use of the collections and service continued to expand steadily. The Stewart Wallace Room, in the first full year since re-opening of its shelves, showed a rise of 34 per cent in its loans. Loans to other libraries increased by 37 per cent. Our book delivery service, in its ninth year, operated three vans to serve 61 delivery stations, and carried approximately one-third of all the loans that went out to members of the teaching staff. The photocopy service, having octupled in two years, made more than half a million exposures and began to be a significant supplement to the lending services.

Library Council

For the first time, students attended meetings of the Council and its Executive Committee as "assessors." The experiment proved constructive, and at its May meeting the Council voted to ask the Senate to change its statutes so as to provide for the appointment of four students as voting members on the Council, two on the Executive Committee.

The student "assessors" asked for extension of the privilege of stack access to all students. In view of the special needs of graduate students to study in the stacks, and in view of the many special facilities which the University provides elsewhere for junior students, the Council refused the request. However, in order to cut through a rather unmanageable tangle of earlier rulings, the Council adopted a second suggestion put forward by the students, that first-year honour students (who had been eligible) should no longer be admitted but that second-year General Course students in Arts and Science (who had been ineligible) should be admitted. In response to suggestions from members of the teaching staff, the Council also reviewed the rules governing "extramural" readers and visitors from other universities; as a result, a new category of external "research" reader was established with approximately the same privileges as graduate students, and a scale of fees was established for both "extramural" and "research" readers.

The Council authorized the Chief Librarian to hold a series of open meetings, to promote the exchange of views and information between the teaching staff and senior members of the Library staff. Four meetings were held during the fall term, one for the departments in each of four divisions of the School of Graduate Studies. Total attendance was only 58 but the exercise seemed useful enough to be repeated from time to time.

Quite apart from student involvement in the Library Council, the Librarian and his staff continued to have useful contacts with the SAC Library Committee and other

student agencies. For the fourth successive year, the Library was a joint sponsor, with the Students' Administrative Council, of a speed-reading course which enrolled 300 students. The Library also made its Telex machine available to the editors of the *Varsity* for their wire-service.

Co-operation with Other Libraries

In August, the International Federation of Library Associations, at its first conference ever to be held outside Europe, brought to our campus more than 300 librarians from 32 countries. At an IFLA session on the MARC (Machine Readable Catalogue) experiment, the director of systems development at the Library of Congress referred to the University of Toronto as the "best user" of MARC tapes.

During the year we continued to take part in various other co-operative activities, at home and abroad. As Chairman of the Board of the Center for Research Libraries in Chicago, your librarian helped to bring about fundamental changes in the Center's pattern of membership and use. At the provincial level we participated in the development of OCUL (Ontario Council of University Librarians), an affiliate of the Committee of University Presidents of Ontario. The long-range objective of OCUL is to establish a provincial system of university libraries which will be self-sufficient as teaching resources, but interdependent as resources for graduate study and research. At its October meeting OCUL initiated action which eventually enabled McMaster University to bring the Bertrand Russell papers to Ontario, but a general plan for subject specialization among the libraries must await long-term agreements for subject specialization in teaching and research. Meanwhile, the OCUL "agreement on co-operative use" may have helped to increase our count of interlibrary visitors to 264, more than twice as many as in the previous year. The OCUL daily van service also brought about a significant rise in traffic between Toronto and the other provincially-supported universities: of Toronto's total interloan traffic (3,777 items borrowed, 20,033 lent) the Ontario universities accounted for 308 borrowed by Toronto and 6,562 lent. That is, we received one loan from the OCUL libraries for every 21 loans we sent to them.

Book Selection

At the beginning of the year David Esplin combined the two former Selection Departments – Undergraduate and Research – into one *Book Selection Department* under Michael Rosenstock.

In its second year of operation the DSO (dealer-selection orders) yielded 33,880 books received and 2.4 per cent returned, compared to 16,448 received and 6.7 per cent returned in the first year. The doubling of receipts is due partly to the scheme having gained full momentum, partly to the arrival of "additional selections" chosen by us from the national bibliographies which dealers had checked, and partly to the enlargement of orders (for instance the addition of *belles-lettres* and geology to the Soviet DSO, and substantial enlargement of the dealer-selection orders for music scores). Some idea of the difference may be gained from this partial list:

	1966-67	1967-68
Australia	50	152
Belgium	11	275
Bulgaria	81	196
China, Hong Kong, and Taiwan	470	1,763
Czechoslovakia	150	167
France	894	2,658
Germany and Austria	927	2,677
Hungary	119	135
Iceland	29	44
Ireland	67	71
Italy	505	1,143
Japan	1,012	2,842

	1966-67	1967-68
Netherlands	306	588
New Zealand	61	116
Poland	438	471
Portugal	143	228
Rumania	50	283
Scandinavia (Denmark, Norway and Sweden only)	490	481
South Africa	195	173
Spain	77	774
Switzerland	71	568
Turkey	61	348
United Kingdom	2,196	3,394
United Kingdom (<i>belles-lettres</i>)	381	392
United States	5,591	4,542
USSR (excluding Ukraine)	673	390
Ukrainian publications (Soviet and non-Soviet)	118	229
Yugoslavia	252	390

Michael Rosenstock estimates that outside the framework of the DSO system, the Library received or initiated nearly 120,000 recommendations for titles to be purchased. Of these, between half and two-thirds were found to be already in the Library or on order, some 8,000 were items from antiquarian catalogues which had already been sold, and a few could not be proceeded with for other reasons. In all, the Library placed individual orders for about 40,000 titles, of which 12,000 were books for undergraduate collections and multiple copies needed for course work, and 7,000 were books (many of them duplicates) for departmental libraries. That is, apart from the DSO system and a few bulk purchases, our conventional orders yielded about 21,000 titles (of which 13,000 were from antiquarian catalogues) for the research collection. Of about 55,000 titles added to the research collection by individual selection, roughly 60 per cent came through DSO.

In selecting for the undergraduate collections, Mrs. Ziplans concentrated on the lists of recommended and required reading obtained from members of the staff. In subject fields in which the department had qualified book selectors, procedures and terms of reference were still being worked out as the work proceeded. In the Gift Section, Miss Fraser and her staff handled 35,420 volumes of which 17,776 were added to the Library and 14,374 were sent on informal exchange to other libraries.

James Feeley reports that the *Order Department*, after the upheavals of the previous year, processed 122,766 items without any serious problems. A smooth flow of receipts and expenditures was maintained, and invoices were cleared for payments as the material arrived.

Major improvements were made on searching for out-of-print material. Advertisements placed in *Antiquarian Bookman*, covering some hundreds of selected titles, yielded a return of 56 per cent. Other desiderata lists, placed for one year on an exclusive basis with dealers selected for their language or subject specialties, yielded a return of about 30 per cent within a short time.

Humanities and Social Sciences

Gerald Prodrick reports continued growth in the use of the three departments in this area, despite serious crowding in the Samuel wing and the removal of one department to a location east of Yonge Street.

For the *Circulation Department* Miss Moulton reports a further rise of 15 per cent in the number of recorded loans, bringing the four-year increase to nearly 70 per cent. This increase includes a significant increase in loans during the summer months, a rise of 92 per cent in loans to faculty members and graduate students, 60 per cent in loans to undergraduates, and a rise of 164 per cent in loans to other

libraries. The Stewart Wallace Room, in the first full year since the re-opening of its stack, accounted for 34 per cent of all loans, compared to 43 per cent from the central Humanities and Social Sciences stack. Altogether, 71 per cent of the department's loans were made to undergraduates, 20 per cent to graduate students, seven per cent to faculty and staff members, one per cent to extramural readers and one per cent to other libraries.

The number of persons entering the main stack rose six per cent to 206,731. The demand for assigned study space inside the stack continued to grow. In each session, each of the 96 stack carrels and the 14 places in the Faculty Reading Room were fully assigned (usually to three readers each) and there was a long waiting list even at the beginning of the summer session. A one-week check of the total seating capacity within the stacks in April showed that 89 per cent of all the places were occupied at 10.30 AM and 93 per cent at 3 PM. When the carrels were cleared at the end of the spring term, 138 books which had been charged to the carrels could not be found or accounted for. Stocktaking in three monograph sections (Philosophy, English, Fine Art) showed the number of newly missing books to be slightly more than one per cent, rising to nearly four per cent in some of the subsections of Art. It was noteworthy that the rate of disappearance of "stack copies," which undergraduates may not borrow for home use, was about four times as high as for other material. Tighter controls are obviously needed to protect the collection.

The new lending regulations, which limit undergraduate loans to one week without renewal and graduate loans to two weeks plus one renewal, were well received by those concerned, and improved the availability of material. Faculty members were much slower to adapt to their new loan period of two months plus one renewal, and some had not yet got used to having any time limit at all.

This was the first full year in which the department gave full service between ten o'clock and midnight five nights a week, and for nine hours on Sunday. Extra hours were added also at New College and University College; altogether these "extra" hours of service amount to about 18 per cent of all our library hours, and account for five per cent of the loans and seven per cent of the stack use.

The principal physical alteration in the department occurred in the Stewart Wallace Room where the shelf capacity was increased to 76,000 volumes, the staff workspace was rearranged, a small reference area was created and the check-out counters were rebuilt to handle the new pattern of traffic.

Use of the *Department of Rare Books and Special Collections* continued to rise, though more slowly than usual, despite the department having been closed throughout July and moved to rented quarters on Charles Street, a mile east of the campus. Despite a free taxi service to and from the Library, the remote location does tend to weed out all but the determined readers, and it offers a real obstacle to readers and staff in the department when they need to consult bibliographies and other reference tools which are in the Central Library. Rare-book cataloguing, for instance, has slowed noticeably.

Miss Marion Brown reports the addition of many fine volumes and collections. Enthusiasm engendered in many divisions of the University by publication of a policy statement on archives has brought in a gratifying flood of archival material.

A good beginning was made in the restoration of bindings. Acquisition of a very fine collection of hand-binding tools from Anthony Birdsall of Northampton will make possible a wider variety of lettering and decoration.

Miss Wales reports continued growth of all the services in the *Reference Department*, in spite of acute congestion and the various expedients which it has forced on us. Even the new Government Publications Section, which seemed to be greatly appreciated by faculty members and students in its first year of operation, began to be hampered by a shortage of shelving.

As our own collections improve and as the amount of graduate study and research increases, our interlibrary borrowing also increases and the material becomes harder to locate. Although we always try to find a copy in Canada before looking

elsewhere, we obtained only 8.1 per cent from Ontario universities, 44.4 per cent from other Canadian sources, and 46.7 per cent from American libraries. The other 19 loans were the result of requests to Great Britain, Germany, Austria, Italy, Hungary, Australia, and New Zealand. Our most-used sources were the National Science Library, McGill University, National Library of Canada, Public Archives of Canada, Harvard University, and the Center for Research Libraries in Chicago, in that order.

Of 1,607 location requests sent to the National Union Catalogue in Ottawa, 55 per cent were successful; of 543 sent to the Union Catalog in Washington, 79 per cent were successful. Of the 3,877 interloan requests handed in by our students and staff, 678 were cancelled, usually after a copy had been found in Toronto, or after costs or delays made them impractical. No usable source could be found for 64 titles, about two per cent of all those being sought.

Use of the Telex service more than doubled, with 5,468 messages received and 3,381 messages sent out. The 25 other Canadian libraries which use Telex sent in 10,639 requests for interlibrary loans, and we sent them 1,377 requests for items in their collections. Altogether the despatch and receipt of messages took the major part of one person's time.

The Catalogue Information Service was busier than ever, and was staffed by two librarians during peak periods in the fall term. The main catalogues had been re-arranged and expanded into the central public area, and will have to be expanded again before the new building is ready.

Many check-lists and bibliographies were prepared for faculty members, and several publications were at various stages of preparation. *Italian Reference Aids in the University Library*, compiled by Margaret Falconer, was issued as No. 11 in the Reference Series. Many additions were made to the department's index of Toronto theses in the Humanities and Social Sciences; the index now represents about 3,800 theses and was able, for instance, in response to a request from planners of the Thomas Hardy Festival in Dorchester, to provide a list of 31 theses relating to Hardy.

Science and Medicine

Herbert Sholler reports several important changes in this department, and an over-all increase of 20.8 per cent in the number of recorded loans. The largest increases were in loans to other libraries (36.8 per cent) and to graduate students (36 per cent) and there was also a noticeable increase in the number of loans sent to local hospitals (and these are not counted as "interlibrary" loans). The proportion of loans sent out in response to letters and telephone calls, compared to those carried out by borrowers, continued to rise; out of a total of 11,409 loans from the department during May there were 194 sent on interlibrary loan, 954 sent to the hospitals, and 1,568 sent on the campus delivery service.

In a reorganization of the department along functional lines, Mrs. Galt took charge of the lending services and Miss Bradley took charge of the reference service. The medical reserves were moved to the Science and Medicine Reserve room, and that room was opened to provide a controlled-access service similar to that in the Stewart Wallace Room. Rearrangement of furniture around the circulation desk and the stack exit produced a smoother flow of traffic. The biggest change of the year involved rearrangement and refurnishing of the index and abstract room, and the reference hallway, in such a way as to increase the capacity and improve the service.

Our first experiment in "selective dissemination of information" made satisfactory progress under Miss Bradley's direction. The interest "profiles" of 22 professors are matched weekly against the titles of forthcoming journal articles compiled in *Chemical Titles*, and the participants receive bibliographic notices which are printed on cards by a computer. So far we have paid for the computer-work to be done by the American Chemical Society, but as the project grows and others begin,

we expect that it will be done on our own computer unless this kind of service becomes available through the National Science Library in Ottawa.

On March 1 this department became responsible for staff and budget in the Nursing Library. At the end of the year, the Engineering Library was waiting to expand into some adjoining rooms which would allow the consolidation of two or three additional departmental collections, and would afford temporary relief until more adequate quarters are available.

Technical Services

Ritvars Bregzis reports two major developments in this area of work. The first is the University's decision to install a Sigma 7 computer system in the Library in January 1969. The second, which took place at the end of the year, was division of the Catalogue Department to form a Technical Processing Department. The responsibility of the new department includes the cataloguing of all monographs for which some usable catalogue record is available, and the maintenance of most of our catalogues.

The *Systems Development Office* has been concerned with five principal tasks: maintenance of the shelf-list conversion programmes, design of programmes for conversion of the old catalogue records, maintenance of programmes for the MARC project and the Brieflisting project, and creation of support-programmes for the Reactive Catalogue project. An acute shortage of usable running time, on the University's computers, made it necessary for our consultants and some members of our systems staff to wait for whatever hours were available, at any time of day or (usually) night, and the results which were achieved are a credit to the perseverance as well as the ability of these people.

Participation in the MARC I pilot project continued to the end of May. During 11 months the MARC tapes from Library of Congress gave us 27,734 records for publications in English, and of these we were able to use 3,655. During the first 37 weeks we checked the tapes only for the books acquired through "dealer-selection" and found copy for about 45 per cent of them. During the last ten weeks we checked also against current books in English which we had ordered individually (about two-thirds as many were obtained by dealer-selection) and we found MARC copy for more than 90 per cent of these.

The Conversion project completed the first stage of converting shelf-list information to machine-readable form for all our holdings which are classed in the Library of Congress scheme. The direct cost of converting 126,017 title records during the year averaged 70 cents a title, or 57 cents per title-location. At the end of the year, plans had been made for converting catalogue records of material in the old classification.

The Reclassification project accelerated to 19,400 titles (75,454 volumes) bringing the total of reclassified material to 80,075 titles in 361,101 volumes. Including our additions made since the beginning of this project, there are now 351,337 titles in 973,984 volumes classified in the Library of Congress scheme.

For the second consecutive year the *Serials Department* was able to keep up to date in its cataloguing of new titles, and recording current additions. The total of 3,562 serials title copies added to our list, reduced by 600 cancellations and 506 duplicate copies, left a net increase of 2,456 titles to our list. In our previous subscriptions there was an average price rise of 6.3 per cent, which came to \$12,500 more than we had budgeted. The new additions bring our current serials to a total of 19,227 titles in 22,200 copies, and Donald Smith expresses concern at the rising rate of duplication. The 12,863 titles (15,501 copies) which we get by subscription (rather than by gift or exchange) show a duplication rate of 17 per cent in the humanities and social sciences, 32 per cent in the sciences. While most of these duplicates may be needed while they are new, it is not at all clear that we need to bind them all and house them indefinitely; obviously this is a matter to be reviewed.

The *Binding Section* increased its output by nearly 23 per cent and maintained (with only a few hitches) its schedule for serial volumes. There was a splendid increase in the output of work per person, partly because of new procedures and partly because of exceptionally good continuity in the staff of the section.

The *Catalogue Department*, our largest department, began the year by moving into new quarters and ended the year with an internal shift of staff to accommodate a split into two departments. Mrs. Linton reports that it continued, in the meantime, to increase its output and to adjust to the evolving needs.

The Proof Slip Section became increasingly involved in the processing of books for which MARC tape records were available. For the titles fully catalogued, Library of Congress copy was available in some form or other for 54 per cent.

The new Brieflisting Section under Miss Miyamoto was running smoothly by January, and with a total staff of three people was able to process about 1,300 titles a month, providing approaches by author and title in a punched tape from which cards were produced automatically for the various catalogues. After clearing eight thousand volumes out of the backlog, the section was cut back to part-time operation, to match the flow of low-priority material which is considered suitable for brieflisting. Detailed production records kept during the peak period of four and a half months showed that 5,897 titles in 6,125 volumes were processed at a direct salary cost of \$5,060 or only 86 cents per title. On the average, processing took seven minutes of the librarian's time for editing title-page information and revising, 6.5 minutes of the senior library assistant's time for keypunching, and 7.25 minutes for typing and pasting pockets and labels. That is, after selection and searching had been done, an average processing time of 20.75 minutes per title prepared books ready for the shelves, produced catalogue cards ready to be filed, and created a machine-readable record.

The growing proportion of material in non-Roman alphabets now demands a larger share of staff than the Original Cataloguing Section which works in the Roman alphabet. The East Asian, Indian, Islamic and Slavic sections processed 16,990 monographs and 1,365 volumes of serials; in addition they handled reclassification in their languages, romanization required for the Conversion project, romanization of Chinese titles for the Searching Department and of Japanese music scores for the Music Section. The Music Section almost doubled its cataloguing of scores, despite a heavy increase in the number of Japanese and Russian titles.

The Added Copies Section and Book Processing Section were able to keep their work up to date through the year. The Card Production Section developed a backlog during the winter but managed to eliminate it by June, partly by getting some help from other sections but mainly by a major effort of its own, especially by senior members of the Section who gave many hours of overtime to the task.

The Union Catalogue Section continued to make good headway toward completion of initial editing by late 1969. Its work so far has shown a surprisingly low rate of duplication among the dozens of collections concerned. The 317,390 report slips edited so far have yielded 233,923 different titles; that is, 83,467 or 26.4 per cent of the report slips are duplicates within the outlying collections. On the other hand, only 47,661 or 20.4 per cent of the "union catalogue" titles are duplicates of material which has been catalogued by the Central Library, and only 61.1 per cent of the "union catalogue" entries are for authors already represented in the Central Library.

After two initial years of experiment and adjustment, the *Searching Department* had a highly satisfactory year. In the co-ordinated gathering of information for purposes of acquisition and cataloguing it fulfilled its role admirably, and the number of titles searched rose to 216,099. The flow of work was improved by expansion and rearrangement of floor space, and by replacement of the microfilm camera by Polaroid equipment. Some 212,500 "Shared Cataloguing" cards were received from the Library of Congress during the year and were filed on the day of arrival. Mrs. Raudzens is to be congratulated on having developed a very effective department, and on having earned a reputation for exceptional generosity in dealing with other Library departments.

Scarborough and Erindale College Libraries

At the beginning of the year these libraries established their own *Technical Services Department*, under the direction of Andrew Gregorovitch. The department is based at 175 Bedford Road, but does some of its work in the College libraries and some at the Central Library. For the 7,843 monograph titles catalogued during the year, 56.5 per cent of the records were derived from University of Toronto catalogues and 30.6 per cent from the Library of Congress. The original ONULP book catalogue, which contained the holdings of these colleges, was supplemented by computer print-out in a simplified format.

During the year each of the colleges drew preliminary plans for its permanent library building, and each included space for its own technical services department. Continuation of a joint department was considered but rejected; it was agreed that the colleges would continue to diverge in the content of their courses, and could not continue the duplication of purchases which had been the basis of economy in the joint operation to date.

John Ball reports that the *Scarborough Library*, serving a doubled enrolment, doubled its number of loans. Two fifteen-minute orientation lectures, prepared on videotape, proved useful. Having overflowed its temporary quarters, the Library was preparing at the end of the year to put 20 or 30 thousand books into storage where they will be available on 24-hour notice. A number of study carrels, removed from the Library to make room for faculty offices and library workspace, were moved to some lounge areas and to a reading area at each end of the College's pedestrian street.

Hugh Smith reports that *Erindale College Library* opened its doors with about 56,000 volumes, most of them in storage 25 miles away on Bedford Road and available only through the daily van run. The 70-seat reading room was adequate for an enrolment of 200 first-year students, but was obviously much too small for the larger enrolments which were to come. Meanwhile it was necessary to go on building up the collection; 11,463 volumes were added and expenditures included a refund by the Provincial Government of \$10,000, an unused balance from the Ontario New Universities Library project.

Staff

Appointments and promotions were so numerous that only a few can be mentioned here. Herbert Sholler came from Buffalo in August to become Assistant Librarian for Science and Medicine, succeeding Peter Steckl who had moved to Ottawa to establish a library in the new Department of Manpower. Michael McCahill came from Sir George Williams University to work with Hugh Smith on the building plans, and then to take over from him the major responsibility for planning, as Erindale College began to require the full attention of its Librarian. Isabel Godefroy came from the Library of the University of British Columbia in September to replace Michael Campbell as my Administrative Assistant. Margaret Slater succeeded Edythe McCausland as assistant head of the Reference Department. Donald Smith, while retaining responsibility for the serials Department, became Acting Head of the new Technical Processing Department, and Phyllis Simson became Assistant Head. Valentine de Bruin became Chief Cataloguer in the Serials Department, replacing Jean Yolton who began a year's leave of absence. Sheila Laidlaw returned to the Circulation Department in June to be supervisor of Undergraduate Services. Margaret Trott became librarian of the School of Business Library after Mary Shimla's departure. Charlotte Reid became head of the Nursing Library, replacing Sophia Duda. In the Engineering Library, Randolph Mark succeeded Sheila Maxwell, and in the Hygiene Library Marion Greene succeeded Margaret Murray who had moved to the Law Library after Diana Priestly's departure for York.

Under the recent ruling of the University's Research Board, which makes librarians eligible on the same basis as members of the teaching staff, Michael Rosenstock received a research grant to enable him to complete his bibliography of Il'ia Ehrenburg.

The steady growth of our Library has made possible an increasing specialization of work, and a progressive assignment of librarians in some departments to duties which are mainly supervisory. As the proportion of clerical and supporting staff has increased to four-fifths of the whole staff, we have felt the need for a thorough analysis and evaluation of those positions. At the end of the year we had begun to work with the Personnel Office on a plan to conduct such a study.

During the session we continued to employ students on an hourly basis. The largest number on our list at one time was 173, and altogether their labour amounted to 31,868 hours.

I sometimes marvel that the Library and its services can continue to flourish in spite of the crowding and growing inconvenience of our quarters. The fact that they do is a tribute to the ability and spirit of the staff in every division. I am thankful to them.

ROBERT H. BLACKBURN

Administrative Services

THE DIRECTOR OF THE OFFICE OF ADMISSIONS

The University has now experienced the end of admissions by Ontario Department of Education Grade 13 examinations, and the first school year, 1967-68, in which the applicants' grades have been provided principally by their own schools. Every effort has been made in the Office of Admissions and in college and faculty offices to select students in accordance with their true abilities and accomplishments, but the efficacy of the year's work cannot be evaluated until the summer of 1969 when the first-year university grades of the admitted applicants are available.

The 1967-68 session also marked the beginning of the use of the general application form common to the sixteen Ontario universities. The development and use of the common form involved university admissions officers in an increased number of co-operative endeavours organized by the Ontario Universities' Council on Admissions, the Ontario University Registrars Association, the Service for Admission to College and University, the Ontario Institute for Studies in Education. In addition, there was frequent consultation with the Ontario Secondary School Headmasters' Council. The schools and universities must now share the responsibility of student selection and do realize that they should be in constant communication.

The use of the general application form also caused this University, and most of the Ontario universities, to require a non-returnable fees deposit of twenty-five dollars from accepted applicants.

Standardized, machine-graded aptitude tests will be provided in January 1969 through the Service for Admission to College and University on a national basis; this is the culmination of an enterprise begun in 1962 which has been in part guided and in every way supported by the University of Toronto. The use of standardized test scores within this University involves extensive statistical work which has been carried out by the Office's own staff, with the help of the Office of Statistics and Records, and the Data Processing Department. In the forthcoming months the Office will be further concerned with test interpretation. At the same time the Senate Committee on Admission Standards will be studying the effect upon secondary school teaching of the recommendations of the Provincial Committee co-chaired by Mr. Justice E. M. Hall and Mr. L. A. Dennis, implying as it does proposed university admission after twelve grades of schooling and a credit system of promotion within the schools. Other problems which are becoming more urgent annually include the admission of transfer students from other universities, applications from United States secondary schools, and applications from students of the Colleges of Applied Arts and Technology. The University of Toronto in conjunction with several other Ontario universities has taken the preliminary position of offering to consider the applications of first class graduates from these nineteen Ontario colleges, and intends to consider the applicants as talented individuals rather than as the holders of

collections of equivalent course credits. Graduates of the Colleges of Applied Arts and Technology will not appear in appreciable numbers until 1970.

Within this office an innovation was the appointment in August 1967 of Mrs. Elizabeth Wilson as Student Enquiry Officer. Mrs. Wilson, a University of Toronto graduate, makes regular visits to all parts of the University and is equipped to correspond with and interview the many prospective students who visit the campus throughout the year. It is no longer necessary for visitors to rely entirely upon information given over the counter or in form letters, and although advance appointments are preferable, a surprisingly large number of unannounced visitors have been interviewed.

The volume of applications and enquiries continues to increase. More than 20,000 applications and 10,000 additional enquiries are dealt with annually. The Office distributes most of the University's calendars, many of them by mail. It may be necessary in the near future to seek authority to make a charge for this service, more to restrict unnecessary distribution than to meet fully the cost of printing and mailing. A large free list of authorized institutions would of course be maintained.

The Director is grateful to his staff for their untiring efforts and their ability to meet constant deadlines. He regrets that the Assistant Director, W. D. Bohm, is leaving the University in order to become Director of Admissions and Records at Lakehead University and that Mr. R. L. Cummins who has been in charge of research operations has left to become Assistant Registrar of Trinity College. Both these men have demonstrated great ability.

E. M. DAVIDSON

THE DIRECTOR OF THE ADVISORY BUREAU

These are exciting times to be on a university campus almost anywhere in the world. This is not to say that the winds of change blow strongly only here. But the special nature of universities sharpens the focus of issues which elsewhere often seem more diffuse. Perhaps this is because they are societies more literate and articulate than others. Perhaps this is because the protagonists seem more easily defined here, as young and old, student, faculty and administration. Perhaps this is because there is more to change.

It needs repeating, although it has become now commonplace, that universities have become central institutions in the society. As such, on the one hand they face pressures to provide the knowledge and the manpower to advance a highly technically-oriented society and this generally means an increased emphasis upon efficiency, centralized planning and centralized authority. On the other hand, the universities face a contrasting force which is also strong in the larger society. This force, which finds its principal thrust among youth, the poor, certain minorities and more ambiguously elsewhere, in the main expresses itself in the form of a disenchantment with the quality of life, a criticism of technology as an end and a demand for a larger say in the decision-making process. The universities, for a variety of reasons, are ill-equipped to meet the crunch of these opposing forces. They have an ancient tradition of rigid authoritarian governing, coupled with an equally ancient rhetoric of freedom. For university officials this makes the use of force as a means of resolving disputes exquisitely distasteful and makes them even more vulnerable to force. In addition, the universities are relatively fragmented, incoherent communities with

a potential for divisiveness consequent to a highly varied and inconsistent understanding of aims and purposes. Then, too, the celebration of the rational element of man is nowhere more marked than in universities, so that here it is almost improper to speak of the irrational and emotional elements. It seems clear, for example, that when professors and administrators say that one aim of a university is the extension of knowledge, they almost never mean personal knowledge. That realm, for reasons which seem passing strange, appears to have been delegated to the psychotherapist. These factors – the ambiguity surrounding the meaning of freedom, the varied expression of aims and the lack of sanction for the open examination of the irrational and emotional – make problem solving in the face of internal crisis exceedingly difficult for a university community. In time of crisis, how well does the artsman fit with the engineering and medical student, the Arts faculties with the Professional School faculties, the graduate school with the undergraduate colleges and departments, the administrators with the junior faculty? How does the dignified academic or official relate to persons who use bull horns, speak of piss-ins and refer to themselves as niggers?

This University campus, though, is relatively tranquil; and obvious and less obvious efforts are being made to institute orderly change. During the past year, the Macpherson Committee not only brought in important recommendations, but, by the character of its deliberations, has allowed many to participate openly in a discussion of the nature of learning. Some of the recommendations of the Duff-Berdahl report were implemented and, as well, the Commissioners visited campus and participated in discussion and debate. An increasing number of students made their appearance on councils and committees that formerly welcomed only faculty and administrators. Many staff-student relations committees appeared with effective student membership. Studies of the structure and organization of the University are being instituted. Student-sponsored course evaluations appeared. There was the Dow sit-in which led to a Students' Administrative Council presidential election, and to the beginnings of open discussion of a number of aspects of the aims of the University. A Presidential Advisory Committee on Discipline was appointed, and in residence halls, there was serious discussion as to the continuing need for dons.

In nearly all of these obvious events and in many less obvious, the staff of the Advisory Bureau had direct or indirect involvement. This follows from the central importance we attach to the Bureau's role as an agency committed to assisting with institutional self-analysis, committed to assisting efforts toward the achievement of open discussion of issues and concerns, committed to assisting in the reduction of barriers to trust and mutual respect. Some mention should be made of some of the less obvious activities that the Bureau staff fostered or participated in. A group of campus leaders, official and unofficial, drawn from faculty, student body and administration met regularly with us during the year with the purpose of exchanging views on the aims of the University. A group of "typical" arts undergraduates were recruited and met regularly at the Bureau to discuss and exchange their views on the University. Members of the Bureau staff assisted the various groups of the Student Health Organization in their efforts to assist mental patients, Indians and Yorkville habitués. One of us acted as resource person throughout the academic year for a student-designed course which employed student-centred teaching. We assisted the students' council and faculty of the School of Nursing in their efforts to find more effective ways towards co-operative endeavour. We again helped in the general freshman orientation programme and did intensive work with Innis College students and administrators towards finding a more effective means of developing the College as a community. With St. Michael's College, we sponsored a large and successful three-day seminar named "On the Construction of Values" which brought together members of faculty and graduate students from various of the helping professions. We helped plan and then participated in the Xth and XIth Seminars of the Canadian Union of Students. We were directly involved in the planning and execution of the Arctic Summer School of Frontier Medicine of

the Canadian Association of Medical Students and Internes. We assisted with youth leadership training programmes in northwestern Ontario. We took part in Human Relations training laboratories. Assistance was given to planners of family life education courses, to the Company of Young Canadians, to CUSO, to an intergroup project in a University mental hospital, to additional groups concerned with the Indian in the city. Latterly, we have given support and assistance for the formation of a high-school student reception centre on campus. As in other years, the staff participated on many panels, and continued, as well, to hold informal talks with persons from all parts of the University. And finally, we offered counsel and comfort to many troubled people who found their ways to our offices.

D. J. McCULLOCH

THE DIRECTOR OF THE HOUSING SERVICE

During the year 1967-68 the Housing Service continued its efforts to provide information concerning off-campus accommodation for University members, both students and staff. Lists of available accommodations were regularly prepared and distributed but due to the heavy demand and the rapid turnover of rental housing in Toronto it was difficult to maintain accurate records of availability particularly during the peak periods at registration. Soaring rents are reflected in the higher rates charged for all types of accommodation. Newcomers to the city, particularly those from abroad, find it extremely difficult to accept and adapt to the high costs.

Registration of persons seeking accommodation increased by 20 per cent. Listings of accommodations also increased but there is still a shortage of the type that is desired, primarily self-contained efficiency apartments and family housing. Despite improved transportation facilities students prefer to live within walking distance of the St. George campus even in less desirable accommodations.

If the measure of success of the Service is dependent on statistics of satisfactory accommodation obtained from our listings we are unable to estimate our achievement. We expect that new procedures we are initiating will give some better measure.

The Housing Service was assigned a new responsibility in 1968, to receive and process applications for apartments for married students in buildings presently under construction by Ontario Student Housing Corporation at the request of the University. This has entailed the development of new procedures in co-operation with the Corporation and the University Committee responsible for initiating the development.

We have been heartened by the response of property managers of large complexes whom we consulted. While they could not provide a stock pile of vacant apartments they were very helpful in assisting individuals and gave some priority to persons referred to them by the Housing Service.

The annual request to Faculty members on summer and sabbatical leave to list their houses with us met with a good response. The demand for family houses for the full fall and winter term continued but the need for houses during the summer sharply decreased due to a variety of reasons, probably including the elimination of Grade 13 Departmental papers.

We are gratified for the assistance and support of the Advisory Committee to the Housing Service under the Chairmanship of Dr. Albert Rose. The individual members as well as the Committee as a whole have been most sympathetic and generous in their assistance. We appreciate too, the services of the newspapers, including *The Varsity*, and of the radio stations in publicizing our housing needs. We would also like to express appreciation to SAC members and to the Campus

Co-operative and Rochdale College staff members in keeping us in touch with current developments and plans so that we may provide as full information as possible.

MARY JAFFARY

THE DIRECTOR OF THE INTERNATIONAL STUDENT CENTRE

This has been a year of programme development and experiments in co-operation at all levels. After last year's strenuous and self-conscious attention to the details of putting our new house in order, we were able to get down to the serious business of determining what goes on within its walls. We were also able to explore with students the Centre's leadership potential, and to make creative changes in the area of staff and student co-operation. The elected Student Committee has managed the activities of the Centre with imagination and efficiency, and has paved the way for the isc new Student Council, which assumes a co-ordinating role with increased responsibility as its name implies.

A major concern this year has been to ensure student participation and involvement at every level of planning and decision-making. Students on the Advisory Board have held more than token offices; they have maintained an actual balance of influence and participation on the Board and in the many working committees and planning groups. Three new standing committees of the Board now have student chairmen: the House Committee, the Development Committee, and the new Student-Community Relations Committee. These, with the elected Student Council, make a strong and creative leadership nucleus.

A significant pattern of co-operation has also developed among students, university administration, teaching faculty and community friends, all of whom are represented in the committees which plan, administer and evaluate the activities of the house.

The Centre is for people, and its life is designed first of all to bring students in touch with students. A summer programme of suppers in the house, discussions, plays, concerts, picnics, weekends in the country, trips to Stratford, Niagara, Muskoka and the Conservation Areas brought University of Toronto summer students and visiting students in touch with isc. This was followed by a busy fall when 200 student volunteers managed the Overseas Students Reception Service seven days a week and met over 350 new students from abroad. There was also an Orientation programme of talks, films, discussions and tours to acquaint newcomers with the campus, Toronto and Canada.

During the year our traditions include monthly newsletters, noon-hour talks, a discussion series on Canada and the world, a house newspaper, documentary and art films, an art group, a music group, academic seminars, concerts, folk dancing, professor-student teas, debates, lectures and workshops, coffee hours, house parties and small planning meetings. An overseas alumni newsletter is being mailed again this summer with the help of Alumni Affairs to 2500 alumni abroad.

Another isc tradition is the Overseas Wives Club involving about thirty wives and their children with a number of Canadians. They have met at least twice a month at isc and in homes for discussions and demonstrations on Canadian Crafts, Flower Arranging, Nutrition and Cooking and for films of special interest. Trips were arranged to the Art Gallery, the Museum and the Flower Show. Sometimes the Canadians invited the overseas wives to lunch or tea, but as the interest and

friendships grew, the overseas wives took the initiative and invited members of the group to their flats. The effects of these small events seem to have been far-reaching.

Some of the year's highlights were visits from Sir Robert Birley and Father Huddleston who shared their concerns about Rhodesia and South Africa, the weekend Conference on African Affairs, the International Dinner with students from the University of Ottawa as guests, the International Festival with fifteen national clubs contributing to the cultural mosaic, the annual External Aid Reception, breakfast and lunch at isc for 45 French-speaking students from the University of Montreal, our "family afternoon" when the Overseas Wives Club entertained their husbands and children and Canadian friends for tea on the lawn and our Graduates Dinner and Steel Band dance for 300 guests.

We were grateful this year to all those who made our Travel Programme possible. Twelve overseas students were chosen from a large number of applicants for special \$100 or \$200 grants for travel in Canada. Bus trips to Penetang, Stratford and Niagara were subsidized by the Ontario government Department of Educational and Cultural Exchange. Air tickets were sent by Rotarians to 12 students to transport them to Sault Ste. Marie for a weekend with Rotary families. As a result one student has already been offered a summer training programme in the Sault that will be available for him every summer until the end of his course.

Many members of the university staff have contributed to the life of isc through their conversation with students here, their gifts to our programme funds, their participation in isc lectures and discussions, their help on working committees, and the Advisory Board. The students appreciate their interest and their involvement. This year we have been pleased, too, by the unexpected presence of small groups of university faculty in our common rooms from nearby departments and offices. They have added greatly to the general interest and atmosphere of open communication.

The Centre continues to provide facilities and to work out events with many student groups on campus - nine national overseas student groups, the Graduate Students Union, the Engineering Society, SAC, WUS, SCM, VCF, Newman Centre, SHOUT, CIASP, CEWV, Crossroads Africa, Junior Red Cross, and most importantly CUSO whose offices are in isc. There have been many requests this year from non-student university groups for the use of our common rooms and kitchen; faculty wives from Arts and Science and Engineering, alumni groups, graduate students from specific departments and wedding receptions for overseas alumni connected with isc. The Centre makes space available to groups and individuals only when there is a definite link with the university. Even within these limits, we receive many more requests than we can accommodate in a seven-day week throughout a twelve-month year.

There is another interesting dimension to isc. It helps to make Canadians more aware of the world. National groups have a strong impact here. Through nine cultural evenings this year Canadians have learned of Africa, India, Pakistan, the Philippines, the Arab countries, Hungary, China, Latin America and the West Indies. Students are compiling an international cookbook, the folk singing group has collected many international Folk Songs, and isc has a rapidly growing collection of handicrafts, books and records from around the world.

Many Canadians have felt the impact of world conflicts here since the Centre has been the scene of spirited discussions during this year of political crises. Students from Canada and the Arab countries debated hotly on the Arab-Israeli war, and a panel discussion in which Indians and Pakistanis took part brought into sharp focus the tensions over Kashmir. The war in Vietnam was considered from every angle, and many talks and arguments centred around the causes and effects of the struggle. All year the problems of Rhodesia, Zimbabwe, Nigeria and Biafra have been so constantly before us that Canadians have been unable to remain aloof. Black Power and Integration have been topics of keen interest to Canadians and overseas students alike. It has not been easy to accept one another's views in these days of sharp confrontation and conflict, but many have gained fresh insights as they listened and talked together.

Overseas students are encouraged to participate not only in events on campus, but in the city as well, to meet not only fellow students and professors, but Canadians in the community. To this end the Student-Community Relations Committee, the Student Council and the Staff combine their talents and imagination to create new and interesting ways of bringing people together – Sunday Open House, sight-seeing drives, travellogues followed by tea in Canadian homes, picnics and barbeques at cottages of friends, neighbourhood suppers, weekends out of town with families, lectures, concerts and plays with Canadians. This year over 400 overseas students were involved in this aspect of the Centre's activities.

At our Student-Staff Evaluation Seminar in June, the matter of student-community relations was seriously discussed. Students felt that they would like to widen their experience with Canadians of different ages and backgrounds. They also expressed a strong interest in community projects based in centres such as Woodgreen, St. Christopher's House and the University Settlement. Students hope, too, to meet and talk with more young people this year – high school United Nations and Current Affairs clubs, church youth groups, young political clubs, and young artists, writers and musicians. Many overseas students are also eager to make half-day visits to Junior High Schools where they would actually teach classes of young Canadians about their home countries – the geography, history, economic, cultural and social life.

Throughout the year, in spite of a crowded house and a crowded programme, senior staff spend many hours a day talking and listening to students who come to discuss their particular concerns – study, health, finances, employment, English coaching, immigration matters, accommodation, wives and children, personal problems and the purpose and programme of the Centre. While we often refer students to appropriate experts on campus and in the city, many students find new self-confidence in the Centre's community. The informal atmosphere encourages free discussion among the students themselves, and problems are solved, apprehensions overcome, projects undertaken, and friendships formed.

Thus isc is a co-operative experiment involving staff, students and university and community friends. The purpose of the Centre has been, since its inception, to increase contacts between individuals from Canada and abroad, to enable them to know one another as persons, and to grow in mutual acceptance.

This policy of co-operation was initiated not to safeguard our Centre from the possible danger of student unrest, but to ensure the realization of our purpose in the broadest and most meaningful terms. No staff group alone, however dedicated, can plan and administer a programme that will be meaningful and acceptable. Instead we require the concerted efforts and energies of hundreds of people, younger and older, who will discover new opportunities and try out new ideas together.

We have learned at isc that when students participate in policy and programme they are creative and co-operative. The converse is equally true. It is essential that students be consulted and fully involved in every aspect of the Centre's life if isc is to fulfil its challenging role in the university and the community.

KATHERINE D. RIDDELL

THE DIRECTOR OF THE OFFICE OF STATISTICS AND RECORDS

The total enrolment in the Winter Session 1967-68 and the Summer Session 1967 was 38,108 students. This was an increase of 3,002 over the previous year. The Winter Session enrolment alone comprised 21,821 full-time and 6,267 part-time students: an increase of 2,810 to the total of 28,088.

The Ten Year Forecast prepared for the Provincial Government in August 1965 committed the University to provide 20,700 full-time student places on the St. George Campus in 1967-68. St. George Campus full-time enrolment grew in 1967-68 by 10.2 per cent to include 20,709 students.

One-third of the full-time growth on St. George Campus was in the School of Graduate Studies. The Faculty of Applied Science and Engineering, the College of Education and the Division of Postgraduate Medical Education accounted for 50 per cent of the growth. The balance was distributed throughout the remaining divisions.

Scarborough College nearly doubled its population, enrolling 981 full-time students. Erindale College opened in the fall with 151 full-time students.

Volume 5 of Student Statistics was published in June with new material on the frequency of distribution of Grade 13 marks, on the instruction in the teaching divisions of the University and on the origin of first degrees in the School of Graduate Studies.

With the increased student population and greater demand for information, the working load increased in the office following the pattern of recent years. The new equipment and improvements in the Data Processing Department made it easier for us to carry the extra load. The School of Graduate Studies and the Office of Admissions coded most of their own source data further reducing the burden. To all those and to others in Faculty and College Offices throughout the University we are grateful for support.

J. M. TUSIEWICZ

THE DIRECTOR OF THE OFFICE OF STUDENT AWARDS

The session just concluded offered more novelty, and I think I can say more adventure, than even a new director usually has the right to look forward to, for 1967 and 1968 saw major changes in both aspects of our student awards operation: the selection of merit scholarship winners, and the distribution of financial assistance; changes which have affected not only our own internal policies and procedures but also, I am confident, student aid thinking and approach across the province. Both developments were the result of decisions of the Ontario Government, one marking the end of the departmental Grade 13 examinations, and the second decentralizing the administration of the Ontario Student Awards Program. I shall talk about these in reverse order, as that is the order in which we met them.

The Ontario Student Awards Program (OSAP), which combines provincial bursary aid and Canada Student Loan funds in a loan-grant "package," was introduced in 1966 and was heavily criticized in its first year of operation. Early in 1967 the plan was decentralized among the universities, each of which henceforth handled the collection of applications, assessment of need, and preparation of documents for the students on its campus. Needless to say, this decision, while turning out to be extremely wise and effective in the long run, raised tremendous immediate problems relating to staff, space, facilities and procedures, and I cannot express too strongly my gratitude for – and wonder at – the way my predecessor faced these difficulties and planned their solution. Assessing an administrative situation for which there was no precedent and few guidelines, Mr. Purves estimated with stunning

accuracy what the human and physical requirements would be, succeeded in fulfilling them, and had the new wheels well in motion at the time of his sudden death in June 1967. The foresight he showed in the early planning for local OSAP administration became more valued as the year wore on, and the problems which arose at least had a firm administrative base on which to land.

And there were problems. Many emerged, inevitably, from the fact that one agency was interpreting and implementing policies which had been formulated by another. (The two "agencies" in this case were of course those of the University and the Provincial Government, between whom there has been admirable – if not constant! – co-operation and unity of view.) Every day brought new questions and fresh conditions for which there were no ready answers or rules. This situation is not surprising when a new, comprehensive programme is begun, but it does call for maximum flexibility, imagination and patience on the part of all concerned. Decentralized administration of the government programme also required, particularly on this complex campus, an even greater degree of co-operation between the awards office and the various divisions than there had been in the past. But the 1967–68 Ontario Student Awards Program itself was, in concept and design, a generally *good* plan. It had a tremendous impact in many areas of student assistance (the actual "dollar-impact" at this University is shown when 1967–68 statistics are summarized below), and I feel it represents a giant step forward in this field in Canada, if not in North America; for this reason the additional burdens and problems it imposed, and may continue to impose, well deserve our thought and effort.

The second major development affecting us this past year was the cessation of the Grade 13 examinations. These were held for the last time in 1967. We were therefore able, late last summer, to make our admission scholarship awards as usual upon receipt from the Department of Education of the provincial Grade 13 results. There was nothing particularly novel or different in our admission awards operation in 1967: no new contributions or gifts of significant value had been received during the year, and once again it was possible to recognize and reward only a small fraction of the first-class candidates who appeared.

No sooner had these admission scholarship winners registered than plans were begun for the identification and selection of their 1968 successors. A sub-committee of the Senate's Committee on Scholarships began in November to investigate the various kinds of data which could replace the former examinations, and to suggest relative weights which might be attached to any or all of them in an attempt to measure academic merit. It was felt that for scholarship purposes some emphasis should be given to the Ontario Scholastic Aptitude Test (OSAT) scores: an outside measure like this could be a useful supplement to the reports or estimates of Grade 13 performance provided by the schools. As actual high school achievement should, it was agreed, remain at the core of any selection process, awards committees would in addition look beyond Grade 13 to Grade 12 standing. A formula combining these criteria became the basis for the decisions made by the Senate's Committee on Scholarships in May, for it had been decided, following consultation with other Ontario universities, that admission scholarships in this experimental year should be awarded at the same time as offers of early admission went out, and that students should have the same period – until June 15 – to accept or reject the offers made them.

At the time this report is being written, therefore, the awards office has been involved in the naming of two "slates" of admission scholarship winners in something under ten months. An assessment of our 1968 operation is naturally not possible yet, but I think I speak for the Committee when I say that in general we are not unhappy with the decisions we have made and the procedures we have followed. Changes in both may well be proposed in future sessions, but we feel that the study, experimentation and subjective judgment into which the removal of a single, central set of examinations has forced the universities, will have results that are both interesting and positive.

Financial assistance to students of the University of Toronto from all sources, as reported to the awards office to the end of May, 1968, totalled \$12,945,193. This is an increase of \$5,792,390 over the 1966-67 figure. Some \$3,500,000 of this latter is made up of increased benefits under the Ontario Student Awards Program, which more than doubled (to \$6,786,601) in 1967-68 over the preceding year. The loan/grant proportion in 1966-67 was 73/27 per cent; under the more generous 1967-68 terms it became 46/54 per cent. Over 8,000 of our students submitted applications to the Ontario Student Awards Program this past year. Of these, nearly 7,000 received assistance: a large majority qualified for both loan and grant, the others for loan only. The rest of the increase in total aid recorded for 1967-68, approximately \$2 million, does not, I'm sorry to say, represent a similar direct rise in spending. Some growth is of course evident, especially in the participation by various departments and agencies of the Federal Government (the field of external aid is a good example), but the higher figure given earlier remains largely the result of closer reporting of awards and assistance held, and should be taken more as an administrative gain (i.e., in our record-keeping) than as a sudden windfall for our students.

There was a drop in over-all disbursement at the admission level, from \$610,873 reported in these pages last year to \$580,508 in 1967-68, due mainly to the withdrawal of some \$40,000 in Atkinson Admission Bursaries. The University of Toronto enrolled 915 Ontario Scholars in the year just concluded; it will be very interesting to see how this figure may be affected in 1968 by the absence of a central grading system. The Ontario Scholarships (awarded to Grade 13 students attaining 80 per cent or better) have been reduced in value from \$400 to \$150.

University, College and Faculty awards at the entrance, undergraduate and graduate levels did not vary significantly in number and value from those won in recent years, nor was there particularly lively activity in the ranks of "outside" donors (apart, that is, from governmental sources). Some seem to have adopted a "wait-and-see" attitude in the face of the recent tremendous increases in government participation; others are making adjustments within their existing student aid offerings in an attempt to tie in the distribution of their funds more closely, and avoid overlapping, with the new government policies. The University must take a hard look at its own awards, perhaps philosophy as well as programmes, in the coming year. The two concepts of *award* and *aid* are becoming more separate and distinct, and it may be that the time is coming for the University to concentrate on the former and leave the latter, in all but exceptional and emergency cases, to be met through public funds. The Senate's Committee on Scholarships will be pondering this and other questions during the months immediately ahead.

The introduction of local OSAP administration brought an increase in regular staff of six (from fourteen to twenty), and a reorganization of the student awards office into three sections: University awards, Ontario Student Awards Program, Research and Statistics. Mr. Alan Hill joined us in December as Senior Awards Officer, and has been a great help from the outset in the administration of a larger and more complex office.

I cannot conclude without expressing my special gratitude to four gentlemen who have made my first year whatever success it was: to Mr. N. S. C. Dickinson, who stepped in at short notice and kept the office afloat in splendid sea-going tradition during some very difficult months last summer; to Mr. E. M. Davidson, a former Director of this office whose continued interest, good memory, and good humour have helped me through many a day, to Professor R. M. H. Shepherd, Chairman of the Senate's Committee on Scholarships, whose advice and co-operation I seem always to be seeking, and of course to Mr. Robin Ross, for his initial (and stubborn) confidence in me, and his constant support. To these then, to many others across the campus and finally to my own staff, go my sincere thanks.

LOIS REIMER

THE DIRECTOR OF THE UNIVERSITY HEALTH SERVICE

The year has been characterized by increasing utilization of all our services and increasing consciousness of the inadequacy of our physical quarters.

On the St. George campus, we provided 18,008 office consultations in our general medical facilities as compared to 15,218 last year – an increase of 18 per cent. In addition, 458 office consultations were provided at Scarborough College and 209 at Erindale College. The number of patients seen at our Psychiatric Service increased by 21 per cent to a total for the year of 760. The number of sessions provided increased by 40 per cent to a total of 4,588. Three hundred and thirty-one students were treated in our Infirmary for a total of 2,155 days – an increase over last year of 20 per cent and 25 per cent respectively. Of these 331 patients, 61 were for psychiatric or emotional reasons, accounting for 238 of the Infirmary days or 11 per cent of our total patient days for the year. The total physician attendances at all divisions of the Health Service reached 34,242 for an increase of 19 per cent over the previous year.

For the first time in six years, we are not aware of successful suicides amongst our students.

The inadequacy of our quarters is particularly evident in the main medical consulting offices on the St. George campus during the winter months when frequently there is only standing room in our waiting rooms. In the Infirmary, we have been filled to capacity much more frequently and for longer periods than in previous years and have much more frequently been unable to admit patients who properly should have been cared for there.

The remarkable continuing increased utilization of our Psychiatric Service represents in great part the planned growth and thus increased availability of service, coupled with what is as yet, for that Service, reasonably adequate accommodation.

A similar growth in our general medical consultations was noted the first year after moving to our present quarters at 256 Huron Street. These quarters are now inadequate and our rate of increased utilization has slowed down. It is certain that when increased office and Infirmary accommodation are available, there will again be a marked increase in the utilization of these two Services.

Two hundred and seventy-two calls for advice were received by the Infirmary on Saturdays, Sundays and evenings. One hundred and forty final examinations were written in the Infirmary during April and May.

With the increasing numbers of overseas students attending our University and the increased numbers of our own students travelling overseas, tropical parasitic disease continues to be prevalent and of great interest to us. Dr. David Smith, our Senior Staff Physician, has involved himself increasingly in this area and has worked in the Tropical Medicine Clinic at the Toronto General Hospital throughout the year in association with Dr. Michael Lenczner. Dr. Smith sees all students arriving from abroad who have in any way suggestive symptoms, screens their general medical condition in the Health Service proper and takes those who appear to have significant symptoms to the Clinic at the Toronto General Hospital where he pursues the necessary, more detailed laboratory investigations. With this screening procedure, 38 patients underwent detailed examination with positive and significant diagnoses in every case but one. If time and facilities permitted greater leeway in the selection of patients, probably the number would be even greater.

Attendance at the Hart House Surgery has increased a mere 5 per cent, probably continuing to reflect the inadequacy of our athletic facilities. We are grateful to Dr. MacIntosh and his resident surgical staff from the Toronto General Hospital for the supervision of this excellent division of our total Service.

Once again the Chest X-ray Survey, conducted in co-operation with the Gage Institute of the National Sanitarium Association, has been productive of a variety of interesting diagnoses. Of particular significance from the community point of view

was the finding of one active infectious case of pulmonary tuberculosis, three others of questionable activity and ten others who appear to be in the arrested stage but required careful supervision and assessment. Dr. Adrian Anglin has continued to serve in his capacity as Chest Consultant and records his gratitude to Dr. McClintock of the Gage Institute and to Dr. Rorabeck and Dr. McKenna of the Provincial Department of Tuberculosis Prevention for their co-operation.

At Scarborough College, Dr. Fox and our nurse, Mrs. Jean Benson are becoming progressively more busy. In addition to those actual physician contacts listed previously, about one thousand visits were attended by the nurse. Similarly, at Erindale the nurse, Mrs. Vivian Degutis, had 887 student visits and 161 from members of the staff, in addition to those patients seen by our Staff Physician, Dr. Donald Robison.

Sex education, contraceptive advice and unplanned pregnancies continue to arouse interest and activity within the Service. An increasing number of cases of unplanned pregnancy became known to our Service. While the outcome of all these is not known in detail, presumably at least a few led to marriage, a few we know underwent termination of pregnancy on medical grounds following presentation to the Abortion Committees of our neighbouring hospitals, and not a few, we know, on their own initiative sought criminal abortion in other cities.

One experiences deep frustration when faced with an unplanned pregnancy for which the patient is unwilling or unable to accept marriage and for whom one is not able to obtain termination of pregnancy within proper hospital surroundings under adequate medical care and supervision, particularly when the patient then announces her full determination to seek criminal abortion. The problem is complicated further by the advice which we have received from some of the adoption agencies that placement of children born out of wedlock is becoming much more difficult.

A meeting of the Advisory Committee to the University Health Service was held in April. Among other subjects discussed was that of routine medical examination of students entering the University. By custom for many years, all students attending the University for the first time have received routine medical examination by the Health Service. In the days when physical education was compulsory for both men and women, this seemed appropriate and necessary. It also served as an initial introduction of the students to the Service in the hope that good rapport might be established for future use.

However, the increasing demands for our other services, the progressive restriction of budgets and the abolition of the compulsory physical education requirement for men two years ago have all reinforced our feeling that our time and budget would be much better spent in other purposes. We have thus this year abolished the blanket requirement of routine medical examination of all new students, limiting the routine medical, in the case of men, to those participating in competitive athletics or physical education. As physical education is still a requirement for all women attending the University in their first year, we will continue the routine medical examination for this group next fall.

One major and two minor outbreaks of gastroenteritis in one of our residences has led to a review of the food-handling facilities in the University area. Following discussion with Dr. Milton Brown of the School of Hygiene, it is hoped that, in co-operation with the Medical Officer of Health, a survey of these facilities and other potential environmental hazards will be acceptable and possible in the near future. Arrangements have been made with the Medical Officer of Health for the early detailed technical investigation of any future outbreaks.

It has been a pleasure to have Dr. Frances Stewart, the Assistant Director (Women), and Dr. David Smith, our Senior Staff Physician, working within the Service on a full half-time basis through the year, and also to acknowledge the assistance of our many part-time physicians. Despite their excellence, it is becoming necessary to increase our continuing staff and we will be fortunate in having with

us next fall, on a full-time basis, Dr. Edward Armour, a capable physician widely known throughout the Province.

During the year, Dr. Frances Stewart, Dr. Judith Ross and the Director attended the meeting of the American College Health Association. The Director attended Council Meetings of the Ontario College Health Association and presided at the second Annual Meeting of the Canadian College Health Services Association. He also served as Chairman of Council of the Ontario Medical Association and as President of the University of Toronto Athletic Association. All these extra-mural activities have been worthwhile.

Dr. Taylor Statten continues his valued contribution as the Chief of our Psychiatric Division and I repeat in full below his Annual Report of the Psychiatric Division for the past year:

"Once again this past year showed an increase in the number of students who used the Psychiatric Service. The number has increased each year over the past four years and will no doubt continue to increase as long as the Service continues to provide the kind of care it does.

"In analysing the increase on a month-to-month basis, it is interesting to see that during the fall session there were more students applying for interviews than in previous fall sessions. This can be accounted for by the excellent coverage given to the Service in an article, sponsored by the Students' Administrative Council, which appeared in *The Varsity*. It is also a result of a new understanding among the students at large that therapy takes time and if they have a problem which they wish to deal with in a constructive way they must come early in order to obtain enough help during the academic year to develop solutions. It is interesting to note that the number of student petition letters written this year has not appreciably increased over the previous year. Each year students come to the Service late in the academic year, hoping that they will find quick answers to long-standing difficulties. The therapists of the Psychiatric Service do what they can for these students in the short time available, but more often a recommendation is made that the student return early in the fall of the year so that the complex process of therapy can have a chance to make the necessary changes to solve the student's problem.

"The staff of the Psychiatric Service was increased by the equivalent of one and a half persons, bringing the total Service personnel to the equivalent of approximately seven full-time therapists. In 1966-67, the total number of patients seen was approximately 600. In 1967-68, the total number of patients seen was 760. This increase of 22 per cent more patients than last year is almost directly related to the increase in staff when one considers that a staff member sees from 100 to 120 patients per year. The total number of sessions in 1966-67 was 3,291; in 1967-68, 4,588. In the past two years, the average number of sessions per student has been five. This year it is 6.1. There has been an increase in the number of long-term patients in therapy.

"The staff continues to work under a great deal of pressure from October to May. There are periods of time when the demands for service become so great that there may be a two-week waiting period before a student can be interviewed. An attempt was always made to see students who felt that they were in a state of emergency on the day that they requested help. Prior to examinations, we were unable to meet all these requests and a number of the patients were referred to the medical wing of the Student Health Service or to another resource without being interviewed by the professional staff.

"*Service to Individual Students.* Throughout the year, there is some variability in the amount of service an individual student is likely to obtain. In the summer and fall of the year, every student is seen within two or three days of the time he applies. Some of the students will continue for a number of interviews and it is possible for a student to see the therapist throughout the whole of the academic year when therapy starts early. For the most part, a student sees the therapist for a

few interviews and then discontinues, although he is free to come back for further consultation at any time. Quite a few of the students are referred to groups early in the fall. As the year progresses, more and more students are seen for a short period of time – one to three interviews – and are referred to some outside agency or doctor, or they are asked to come back at a later time. We have deliberately chosen to leave the decision about whether or not a student will be seen for an extended number of interviews up to the individual therapist. In a number of cases, it is the student's own persistence and desire for treatment which determines the length of time he will be seen. This kind of service is not limited to the students who are 'more disturbed'.

"It is the feeling of the therapist that the student who is seen over the longer period of time, who establishes a unique and special relationship with the therapist, is likely to benefit most. The kind of learning and understanding that takes place in this relationship can make a tremendous difference in the student's future life. Ideally, the Psychiatric Service should be able to provide more of this kind of service to the students than it is able to at the present time. On the other hand, if we look at the community as a whole, the university student group has more psychiatric care provided than the regular community.

"*Group Therapy.* Early in the fall three groups were organized, which is an increase of one over the previous year. These groups consisted of both men and women students and met on a weekly basis for an hour and a half throughout the year. A certain number of these patients are in individual therapy as well. This technique has proved to be a useful therapy and it is expected that there will be a continuous increase in the number of groups formed from year to year.

"*Infirmary.* The Psychiatric Service made 61 admissions to the Infirmary. I cannot emphasize too much the importance of this resource to the Psychiatric Service. It acts as a very necessary holding unit for patients who are to be admitted to hospital before a hospital bed becomes available; it allows students who have been withdrawn and have isolated themselves in their room, be it a residence or boarding house, to start to mix with others and communicate and exchange ideas. Certain students never seem to get enough rest and sleep and, as a result of fatigue, develop symptoms which cause them to come to the Psychiatric Service. Two or three days of sleep, rest, reassurance, good food and good nursing care often settle them down and make it possible for them to get back to work. There were 25 students admitted to the community hospital psychiatric services during the past year.

"*Training.* Eight clinicians of the Psychiatric Service supervised or tutored nine members of the post-graduate course of the Department of Psychiatry of the University of Toronto. Most of the supervision was around work being done in other centres than the Student Health Service; however, there was one doctor who spent one day a week at the Service as part of his rotation in an experience in adolescent psychiatry. Arrangements have been completed for three doctors to be on the resident staff of the Psychiatric Service next year.

"*Research.* Dr. White and Dr. Rogers have spent many hours in the planning phase of a research project. A student has been employed for the summer to work with Dr. Rogers in preparing for a more active phase of the research project.

"*Other Activities.* The Psychiatric Service co-operated with the Medical Division of the Student Health Service in developing and executing a one-day programme on the subject of Abortion. An interdisciplinary approach was taken and it was felt to be very profitable for all those who attended.

"Discussions on sex education were held with the girls in all the residences of Victoria College. Meetings were held with the various Chaplains of the University, with the Dons and Deans of Victoria College. The men of Victoria College also had discussions around sex and birth control.

"On a broader front, there was involvement with the government through the Committee of Accreditation for Psychiatric Facilities for Children; addresses to the Ontario Psychoanalytic Society and to the Ontario Psychiatric Association on

adolescent problems; involvement with the United Church on the presentation of its brief on Abortion to the Standing Committee of the House of Commons; several presentations to church groups; involvement with meetings of the Marriage Guidance Council and the social workers of the Children's Aid Society and the Association for Vice Principals for the Borough of North York. The requests for consultation for educational discussions, for talks to various groups in the community, for committee work on various selection committees of the University is very definitely increasing. Each member of the staff decided how much or how little of his time will be spent in work of this type."

We are grateful for the assistance and co-operation of the many non-medical persons working within the Service, and the consideration which seems always to be our treatment at the hands of our colleagues in other parts of the University.

G. E. WODEHOUSE

THE ACTING DIRECTOR OF THE UNIVERSITY PLACEMENT SERVICE

The year 1967-68 was one in which placement activities came into the spotlight on Canadian university campuses and in the news media. Like many others, the University of Toronto Placement Service experienced a noticeable increase in the use made of its facilities by students in all courses and levels of study. Protest reaction against the recruiting activities of employers alleged to be profiting from the Vietnam War drew reporters from all branches of public media in November, December and January. The demonstrations interrupted employment interviews for a part of one afternoon and two employers cancelled their scheduled visits to the campus to avoid any possible confrontation. The last demonstration attracted a strong counter-protest from students opposed to any interference with the employment interviews.

There was an approximate reduction of 20 per cent in the number of employers recruiting graduates on the University of Toronto campus. The rather uncertain economic climate, as well as employers' attempts to utilize better their present employees, tended to produce a job market for graduates in which the number of available positions and the supply of university-trained candidates were much closer to parity than has been the case in the recent past.

There was a good deal of concern about difficulties facing students seeking summer employment. Advertising and direct mail campaigns, widespread public awareness of the problem, and a slight improvement in the economy in the late spring helped to ease the situation. Some students were unable to find exactly the kind of position they sought but very few were unable to find reasonable summer employment. Public service announcements on local radio stations helped to encourage an acceptable flow of suitable part-time employment for students during the school year.

Candidates for advanced degrees continued to make greater use of the Graduate Students' Appointments Registry. A more complete listing of teaching vacancies was made available to those seeking posts in university education. Nearly two hundred candidates for Doctor of Philosophy degrees have lodged complete dossiers of credentials with the Registry and more than 425 copies of these dossiers were mailed upon the request of universities and colleges to which the candidates had applied for appointment.

The first programme of permanent employment interviews was carried out

on the campus of Scarborough College in February. About twenty-five employers were successful in attracting members of Scarborough College's first graduating class. Indications are that there will be a sharp increase in employers' participation in the programme in the coming years.

Group career information sessions were carried out on a trial basis. Student response to these sessions, which were given by knowledgeable practitioners in certain career fields, prompted the Placement Service to embark on planning for a greatly expanded series of such sessions for the coming year. The strong need for individual vocational counselling has also dictated expansion of a careers information library and a staff expansion programme to provide qualified counsellors for students seeking assistance in making a career choice.

In the summer of 1967 President Bissell appointed an Advisory Committee to enquire into policy matters concerned with placement and career counselling activity in the university. The report from this committee was presented in November. Also, in November a permanent Advisory Committee on the Placement Service was established. Containing in its membership strong representation from faculty and students, this committee will be concerned both with policy decisions connected with placement and career counselling and with the more practical matters involved in providing an effective service to all members of the university wishing to make use of the facilities of the Placement Service.

The past year has been a strenuous one for the small staff of the Placement Service. These staff members have earned my sincere appreciation for the competence, energy and enthusiasm with which they responded to all demands made of them.

A. HEADRICK

Student Activities

THE WARDEN OF HART HOUSE

The death on December 30, 1967, of the Right Honourable Vincent Massey, P.C., C.C., C.H., the principal founder of Hart House, marked the end of an era in the life of the House. A memorial service to him was held in the Music Room on Friday, January 5, 1968.

Nearly fifty years have passed since Hart House was opened. From this historical perspective we can look back to assess both strengths and weaknesses of our tradition.

The concept of Hart House was new to the academic world of 1919. Mr. Massey articulated this concept in his address at the formal opening, in which he said:

"Hart House in one sense may be described as a Students' Club, but the purpose of the House is wider. It is greatly to be hoped that this place, from the many angles at which it touches the life of the student, will exert an influence of the most positive nature in giving him a real sense of membership in an academic family, and in making him conscious of a very noble tradition which it is his duty and privilege to maintain.

"Furthermore, let us hope that not only will the House serve the interests of the active members of the University of Toronto, teachers as well as undergraduates, but that it may help to bridge the gulf of time and space which too often separates the graduate from his University."

Mr. Massey's idea of building a community around an institution has been amazingly fruitful. From the outset the Founder and the staff worked to foster the growth of traditions which would provide a continuing life for Hart House. On the one hand were the events presented annually by the committees, such as the Sunday evening concerts, exhibitions of paintings and the debates; on the other hand was the organization of facilities for dining, meetings and conferences to serve the needs of the many university groups of staff, students and alumni.

These two aspects of the life of the House form the continuing traditional base on which each generation of members can build its own variations, reflecting changes in style and taste. The debates and the regular Sunday evening concerts are the tradition; the weekly readings of poetry, a night with Allen Ginsberg and a special concert of "new music" reflect ephemeral changes in style.

The use of the House changes with the generations. More and more alumni find the House serving their needs. About 1400 graduates and faculty are members, and as they participate they build a bridge between the generations. More and more women are using Hart House and each year the committees invite women to an ever-growing number of events. The worth of the life of the House is in the quality of its style and in the part which it plays in establishing a vigorous atmosphere of freedom to learn and to experiment.

The Music Committee this year presented seven Sunday Evening Concerts of a very high calibre. Included in the series were Mary Simmons, soprano, Lorand

Fenyves and Anton Kuerti, and the world-famous Festival Singers. The Glee Club, under the direction of Mr. Walter Barnes, had a good year of singing. In addition to several appearances in the University they performed at Scarborough College, the University of Guelph, at Ottawa, Kingston and Haliburton.

The Art Committee continues to be one of the most alive and active committees in the House. Of the twelve exhibitions presented in the gallery this season I single out for special comment only that of Professor Barker Fairley. At the opening of an exhibition of his own work, a portrait of Professor Fairley by Aba Bayefsky was presented to Hart House by a group of friends. Barker Fairley has made a tremendous contribution to the art life of Hart House and was one of those responsible in 1921 for starting the Hart House collection. This year the Art Committee purchased an autographic print by Harold Town and "Floating the Reality of a Dream" by Villa Longa, a Montreal artist.

The Debates Committee had a year of solid achievement. While events in Ottawa contrived to make it impossible for any of the Ministers to come to debate, the committee managed to arrange five evening debates on matters of topical interest. These included a British Debating Team on the topic, "Youth is Naturally Revolting," Principal Robin Harris on the resolution, "Fully Democratic Government of The University is inappropriate to the purpose of a university," and Professors Arthur Porter and Chandler Davis on opposing sides of the resolution, "Scientists should not conduct research they know is intended for war."

The Library Committee held five Library Evenings, concluding with the controversial Allen Ginsberg reading to an audience of 600 in the Great Hall. The weekly poetry readings have now become well established on the campus and have added a new dimension to the activities of the Library Committee. During the past year we took advantage of the presence of some of the outstanding scholars who visited the University as Centennial Professors. Seven of them, in turn, spent an evening with a small group of undergraduate and graduate members of the House.

The Clubs - Amateur Radio, Chess, Camera, Revolver, Archery, Bridge and Table Tennis - continue to thrive. They represent in total almost 1,000 members of the House.

The fourth exchange of students between the University of Toronto and universities in Finland will be completed this summer with the visit of eight of our students to Finland. This exchange, sponsored by Hart House, was started in 1951 by the late Nicholas Ignatieff.

The year 1969 will mark the 50th anniversary of the opening of Hart House and plans are already under way for a fitting celebration of a half century of achievement and service to the University.

In conclusion I wish to thank the Board of Governors, the Acting President, Mr. J. H. Sword, and all the members of his staff for their co-operation and assistance throughout the year.

E. ARNOLD WILKINSON

THE DIRECTOR OF ATHLETICS AND PHYSICAL EDUCATION, MEN

Men's Intercollegiate Athletics

The Athletic Association has again completed a most exciting year in the realm of Intercollegiate Athletics. The football and hockey teams were successful in winning

the College Championships in their respective sports, but the highlight of the season for all sports was the trip the hockey team made to Innsbruck, Austria, to represent Canada in the World Student Games. It was the first time in forty years that the University of Toronto had sent its hockey team on a trip of such importance and they made a splendid showing, winning two, tying two and losing one, holding the strong Russian team to a 5-5 tie in the final game, thereby clinching the Bronze medal. Shades of 1928 and the Varsity Grads! The coaches and players were a credit to the University in all respects.

In all we had ten Championship teams, honours coming to us in the following sports: football, soccer, rugger, track, harrier, water polo, swimming, hockey, badminton and fencing.

Intramural Athletics

Intramural athletics, which are conducted on a very efficient scale, provide action for thousands of students who cannot hope to make our representative teams. This phase of our programme is most important to the entire student body and forms a very vital and stimulating part of our Sports and Fitness programme.

Probably the most progressive bit of news was the action of the Board of Governors in approving the change in title of the Department of Athletics and Physical Education. As of July 1, 1968, it will be known as the Department of Athletics and Recreation, which is a more accurate description of the responsibilities we hold for the entire male student body, i.e., to provide some form of voluntary physical activity that will enable undergraduate and graduate students to have some fun and relaxation while they attempt to meet the very high academic standards at this University.

The Department will continue to provide instruction in Physical Education subjects for the male students enrolled in the School of Physical and Health Education. This has been a Department responsibility for 28 years.

To all of my enthusiastic colleagues responsible for this most gratifying year I extend my deepest appreciation.

WARREN STEVENS

THE PRESIDENT OF THE STUDENTS' ADMINISTRATIVE COUNCIL

This is an open-ended report briefly outlining the SAC's activities for 1967-68. It is open-ended because the full report would have to survey the past half dozen years of increasing activism in the SAC and project ahead along the activist trend as it continues to develop in the years ahead if it were to be complete. With good luck and future Councils determined to plan ahead and build on what has preceded them, this report will be reduced to a small chapter in a larger account. I hope to touch on both successes and failures, and to speculate on where SAC may go in the future. Where the foundations are shaky, future Councils can at least avoid the same mistakes.

After twenty years of planning, the final arrangements for the Campus Centre have been completed. Developed by students with the co-operation of the University administration as a social/cultural centre for every member of the Campus, the Centre will be under construction as this report goes to press. It features an

all-purpose student theatre, a new approach to furniture design, and an architectural design by John Andrews which was selected by the *Architectural Forum* as one of the ten most interesting of 1967. The capital financing was entirely achieved without recourse to a student levy.

The services of the SAC have expanded as both the Reception Service and Power-Reading Programme were established on a permanent basis. Arrangements have been made to integrate the SAC charter flights with the Canadian Union of Students' Travel Bureau. The film and drama societies experienced a successful year of growth, the Blue and White Band was put on a nearly self-financing basis, and the ailing Blue and White Society was reorganized along more flexible lines. While no large Centennial celebrations were undertaken, the Canadian-Canadian Committee ran a series and festival on French Canada that attracted many participants.

Considerable expansion can be expected in the area of campus communications. The *Varsity* became independent of the SAC by being incorporated as a community newspaper under a board representative of the whole University. Its independence will be assured when arrangements making it self-financing are completed. Radio Varsity doubled its closed-circuit system on campus and is examining the possibility of an FM station broadcasting to the city and AM broadcasting to the campus itself.

The shortage of adequate student housing at reasonable costs has become acute of late, and finding a solution has been a top priority for the SAC this year. The Clark survey, completed in January, analysed in detail the existing facilities and made concrete recommendations as to how to reduce the rapid increase in residence fees. A SAC representative became a member of the University's Coordinating Committee on Housing, opening a formal avenue of co-operation with the administration in this area. Council also became engaged in the construction of Tartu College, a co-operative residence for 400 persons to be opened in September 1969 and undertook the most complete housing survey of its kind in North America in an effort to obtain concrete data which might be used to provide further accommodation.

Another major concern was student aid, in particular the Province of Ontario Student Award Program (POSAP). The amount of money available under POSAP was greatly increased this year, but a recession in the economy has led the Ontario Government to halt the expansion for next year. The most outstanding flaw in the scheme this year was the delay in arrival of second-term cheques which left many students dependent on short-term loans from the student award office at Simcoe Hall in co-operation with the SAC.

The question of the form of government most appropriate to the University arose on several occasions in 1967-68. During the summer of 1967 the Council discussed possible models which received elaboration at the 31st Congress of the Canadian Union of Students, but to date the Council has not developed a firm concept of what the government of the University should be and how it might be realized. Although the SAC failed in this respect this year, it did attempt to raise the question of ideal form by renewing its support for the appointment of a Presidential Committee on University Government with the broadest possible terms. It chose to underline the need for a basic re-examination of the University by voicing the request in the same breath as it refused student representation on the Senate. In preparation for the Committee's hoped-for appointment, SAC should establish working groups where these problems may be raised, perhaps questioning critically documents such as the Committee of Presidents of the Universities of Ontario's *Student Representation in University Government* while attempting to formulate a coherent policy for the SAC.

On more particular planes, SAC offered financial support and advice to students seeking representation at the department level and pressed for student membership on bodies of immediate importance such as the Placement Service Advisory Committee, the Library Council Executive, the Bookstore Committee and the Coordinating Committee on Housing. Its good offices have been used by students concerned with membership in the Faculty of Arts and Science Council. Finally, the SAC

co-operated in the establishment of the long-awaited Presidential Committee on Disciplinary Procedures and welcomed its broad terms of reference.

Towards the end of this year the SAC reformulated its policy on open decision-making in the University. Following criticism from students who were highly concerned about the proceedings of the Placement Service Advisory Committee, the SAC decided that as a general rule meetings of University bodies should be open to all members of the University, including those who report for the campus media, unless some good reason be given to cover closed sessions. All SAC meetings are presently open to anyone except in particular cases such as those pertaining to the purchase of land.

An overdue reform in the SAC's own structure was made this year when the Education Commission was created as an entity separate from Cultural Affairs. Intended to deal with "... policy concerning programs of an educational nature provided by the Council," the Commission laid the foundations of some important SAC projects aimed at changing and improving the education system. The Varsity Summer Education Programme (VSEP), an experimental summer project for high schoolers, was set up on a pilot scale and the High School Visits scheme was reorganized, including a successful conference on campus which inspired the high school students to run their own with SAC sponsorship. The Course Evaluation was refined and expanded in Arts and Science while funds and the Editor's advice were made available to other Faculties. Qualified success was achieved in the promotion of the concept of Course Unions (at the department level), and work was begun to criticize and implement the Macpherson Report. Most significant of all, the Commission has recommended the hiring of a full-time Education Consultant who would devote his energies to the realization of SAC projects.

While looking for change in the University, SAC has not ignored the need to re-examine itself. This year the SAC President was given the option of being a student or working full-time for the Council, thus opening up the possibility of a President registered in some course other than arts or theology. The President and Vice-President, formerly elected by the Council itself, are now elected by a direct vote of the students, and all elected SAC representatives are subject to recall if their constituents indicate that they have behaved irresponsibly. This new principle led to the first contested cross-campus election for the Presidency in December after a fall term marked by such controversial events as the Varsity's reprint of an allegedly obscene article from the *McGill Daily*, proposals to aid American draft-resisters who choose to come to Canada, and efforts to bar companies producing war material for use in Vietnam from the Placement Service. A by-product of the controversies was the discovery that the public news media are highly interested in student activities, occasionally including non-controversial but significant matters.

The SAC has made other attempts to improve its own capabilities. Commissions have begun to devote some of their time to general discussions of SAC policy wherein members can take advantage of the small numbers present, but the Commission system has still not proved fully effective in eliminating wasteful debate on trivial matters at General Meetings. However the addition of non-SAC members to the Commissions has both increased their efficiency and broadened student involvement in SAC. In addition, it has supported faithfully the development of the Committee of Presidents of the University of Toronto, a forum where all student governments at the University can meet to discuss common problems. Lastly, a most fruitful summer meeting helped strengthen Council control over the Executive during its first months in office.

The beginnings of the concerns recounted in this annual report lay in previous Councils. Without inflexibly binding future Councils, it is hoped that this year will provide useful points from which SAC can continue to develop its policies and actions.

TOM FAULKNER

THE COMMANDING OFFICER OF THE UNIVERSITY NAVAL TRAINING DIVISION

Summer Training 1967

Sixteen cadets completed about 16 weeks training at either Canadian Forces Base *Cornwallis*, Nova Scotia, or Canadian Forces Base *Esquimalt*, B.C., including at least two weeks at sea in Gate vessels or Frigates.

Winter Training 1967-68

Recruiting was proceeding at a good pace, with about 10 prospective recruits being processed, when the order to cease recruitment arrived. In spite of their disappointment, three of these have kept in close contact and await announcement of the new cadet training programme (off campus).

Ten cadets undertook the weekly winter training programme from October 6 to November 7, 1967, and all cadets paraded with the Royal Guard of HMCS *York* in preparation for the opening ceremonies of the Royal Agricultural Winter Fair by His Royal Highness Prince Philip. Morale was surprisingly high during this period.

From November 15, 1967, to March 27, 1968, regular training was carried out for 17 weeks. This included such subjects as navigation, seamanship, leadership, communications. Three joint parades were held with the COTC and URTP.

Special Parades

November 10, 1967: Remembrance Day Service, Hart House

November 10, 1967: Royal Guard, Royal Agricultural Winter Fair

March 13, 1968: Annual Inspection, HMCS *York*

Some Cadets joined in the week-end cruises in the Gate Vessels on Lake Ontario with the Ship's Company of HMCS *York*.

Social Activities:

February 9, 1968: Annual Tri-Service Ball

May 7, 1968: Farewell Stag

The Mess President was Cadet A. M. DiCecco.

Staff

Lieutenant-Commander F. W. Galloway, CD, Executive Officer

Lieutenant-Commander J. D. Kyle, CD, Training Officer

Lieutenant (N) R. H. Lavers, Instructor and Divisional Officer

Lieutenant (N) R. S. Burns, Resident Staff Officer

Regular Force Cadets

There is at present one medical student at the university on the Medical Assistance Plan (Navy).

Termination of the UNTD

It is with great regret that I write this as the last Annual Report of the Commanding Officer, UNTD. Although there is no office on the campus any more, cadet recruitment and training of future officers for the Naval Reserve will continue at HMCS *York*. Enquiries should be directed there.

C. D. S. BATE

THE COMMANDING OFFICER, UNIVERSITY OF TORONTO CONTINGENT, CANADIAN OFFICERS' TRAINING CORPS

May 31, 1968, marked the end of the cotc after an unbroken history of nearly 54 years on the campus of the University of Toronto, during which time many thousands of trained officers were passed into both Reserve and Regular Forces. Until near the end of World War II, the cotc provided initial officer training not only for the Army but for the rcn and rcaf as well.

The Contingent officers worked hard to sort out materials acquired in the course of more than half a century. Some files were earmarked for CFHQ but the bulk was transferred to the University of Toronto Archives where future historians will be able to note the close connection with the cotc held by distinguished members of the University, such as Sir Robert Falconer, Rt. Hon. Vincent Massey, Rt. Hon. Lester B. Pearson and Provost Woodside. But this is not the occasion for reminiscences or the recording of history.

The year under review was a phasing-out operation. By the order issued at the end of September 1967, university units ceased enrolling students for Phase I. Numbers declined therefore to a total of 53, including 7 contingent officers and 21 medical and dental subsidized students. However, since the ROTP programme remained in effect, the unit was obliged to give training to officers and officer cadets in all three phases: 9 in Phase III, 13 in Phase II, and 3 in Phase I. Of the twenty-five, 15 were ROTP cadets.

The training year got under way with no rso and no clerk. Captain D. Gowdy vacated the rso appointment on September 1, 1967, to take up a vacancy as an Army medical student. After weeks of strenuous efforts, a clerk was obtained in the shape of Cpl. C. V. Morgan, CWAC, whose presence through the year boosted both efficiency and morale.

It was well into October before H. Q. Training Command acted on my suggestion that F/Lt C. R. Borbridge, rso of 104 University Squadron, be assigned to joint duty. He was therefore appointed Acting rso of the Contingent "on a temporary basis" which proved permanent. On February 1, 1968, with the unification of the Canadian Forces, Flight Lieutenant Borbridge became Captain Borbridge, but long before this he had won the respect and goodwill of all Army personnel. In June 1968, Captain Borbridge assumed his new title of uLO (university liaison officer), responsible for administration and welfare of all Regular Force personnel studying at Toronto, York, McMaster and Guelph. He moved to new offices off the campus in the former rcaf Staff College on Avenue Road.

During the year the unit was again fortunate in securing Colonel C. P. Stacey, Lt. Col. R. A. Spencer and Mr. John Gellner as guest lecturers.

All the usual events took place: the Remembrance Day service at Soldiers' Tower; the Rifle Team's home-and-home competition with RMC (won again by the latter), followed by luncheon in Burwash Hall; two Mess Dinners in February and March (the latter addressed by Lt. Col. A. C. M. Ross); the Tri-Service Ball in Hart House in February for which the Acting President and Colonel B. J. Legge, ED, QC, consented to be patrons.

In this final report I should like to pay tribute to the Contingent Officers who served in the Unit for the period indicated: Major N. R. Steenberg, MC, MSC, DPHIL (associate professor of physics), 7 years; Major J. D. Barber, CD, MASC (associate professor of civil engineering), 14 years; Major G. E. Smith, CD, MA (associate Head Moderns, Etobicoke Collegiate, teacher of Russian and English), 7 years; Major H. S. Marshall, CD (Manager, Sales and Distribution, University of Toronto Press and formerly of the Royal Scots Greys and Governor General's Horse Guards), 7 years; Captain J. R. Larke, CD, BSCF (Head of Science, Sir Wilfrid Laurier CI, Scarborough), 13 years; Captain W. S. Danbrook, BA (teacher of French and

German, Gordon Graydon Memorial Secondary School, and a former ROTP officer cadet who served in the Regular Forces), 2 years.

As of June 1, 1968, the President ceased to be Honorary Colonel C. T. Bissell and the Canadian Forces disappeared from the campus. Since the government has held out as a *quid pro quo* the possibility of establishing a Chair of Military Studies at one or several Canadian universities, it should be pointed out that this would be no real substitute for the presence of an active serving unit on the campus and that the chances of implementation appear infinitely remote in any case. It would seem, moreover, that the government can hardly have studied the resources required, for if it were done on a viable scale (with library and other material included) the cost would likely be more than the whole previously existing cotc programme on 27 campuses in Canada. At a time when training and technology are more complex than ever before it is to be regretted that the Department of National Defence is severing a vital link with the universities.

Since the disbandment is predicated in part on the "Forces in Being" concept and the ensuing reduced role of Reserves, it may be pointed out that contrary policies appear in effect in other countries, especially the United States, where the universities' officer training establishments have been recently expanded.

G. W. FIELD

THE COMMANDING OFFICER, UNIVERSITY OF TORONTO SQUADRON, CANADIAN ARMED FORCES (AIR)

As of May 31, 1968, the long association of 104 University Squadron and the University will come to an end with the disbandment of the university-based Armed Forces units. As a consequence, there was no reserve (URTP) recruiting carried on this year by university units. Cadets presently serving in second phase are to complete their programmes for a commission in the Armed Forces Reserve. Regular Force Officer Training Plan cadets as well as medical, dental, and regular officers studying at this University are to be administered by CFB Toronto. There will be an office established for this purpose at the Avenue Road detachment of the base.

The Squadron has always received the help and co-operation of the Administration and Faculty of the University and wishes at this time to express its gratitude to all those who helped the programme over the years.

It is hoped that any future programmes instituted by the Department of National Defence in connection with Canadian universities will receive the same wholehearted support from this University that they have in the past.

J. W. F. CARON

Supporting Divisions

THE DIRECTOR OF THE CONNAUGHT MEDICAL RESEARCH LABORATORIES

During 1966, the Pan American Health Organization, which acts as the Regional Office of the World Health Organization in the Americas, invited the Connaught Medical Research Laboratories to provide assistance for a programme of smallpox eradication in the western hemisphere, specifically in South America. The project is a part of the global smallpox eradication programme which has been undertaken by the World Health Organization.

Participation of the Laboratories was made official by means of a contract between the Pan American Health Organization and the Laboratories, and work began early in 1967 as recounted in last year's Annual Report.

Two senior members of the staff of the Laboratories, Dr. R. J. Wilson and Dr. Paul Fenje, were appointed as part-time consultants to the PAHO, with the responsibility of obtaining information on facilities, equipment, techniques and test methods in use for the production of smallpox vaccine, and to make recommendations that would ensure an adequate supply of smallpox vaccine of suitable quality for the eradication programme.

Since then Dr. Wilson and Dr. Fenje have visited 15 laboratories in 12 countries of South America, Central America, Mexico and Cuba, and have made recommendations concerning improvements in facilities, production and testing methods and training of personnel.

In addition, and with the co-operation and approval of the Canadian Department of Agriculture, a special isolation laboratory, designed to preclude the possibility of importing and spreading foot-and-mouth disease, has been established and has been testing smallpox vaccines produced in these Laboratories. This is the official testing laboratory for the WHO in the western hemisphere.

The production and testing procedures for smallpox vaccine vary widely in different countries and have, until very recent years, been based largely on tradition. In order to review current knowledge in this field, and to develop relatively simple but sound recommendations for production in developing countries, the WHO convened a small group of experts in this field during March 1968. In addition to the headquarters staff of the Smallpox Eradication Unit in Geneva, there were representatives from Canada (Dr. Fenje and Dr. Wilson), Czechoslovakia, England, Netherlands, USA and USSR. The conference was in the form of a Travelling Seminar, and after meeting initially in Geneva, the group visited production laboratories in the USSR and in the USA. As a result of these deliberations a manual on the Methodology of Freeze-dried Smallpox Vaccine Production has been prepared. It will be available through WHO during 1968.

In April 1968, Dr. Wilson attended a meeting in Rio de Janeiro of the Regional

Advisers for the WHO Smallpox Program to discuss the programmes in various parts of the world. He also visited once again the smallpox vaccine production unit at the Instituto Oswaldo Cruz, which has the third largest production of smallpox vaccine in the world. Following this visit, Dr. Fonseca da Cunha, Assistant Director of the Institute, and Chief of the Smallpox Vaccine Unit, came to the Connaught Medical Research Laboratories for three weeks in April and May to study production and testing procedures with Dr. Fenje.

The consultative function of the Laboratories in the field of smallpox eradication has proved both interesting and rewarding and has extended to production and control of other biologicals. It is probable that in the future these activities will be increased in the region of the Americas.

Measles

During the past year, trials have been proceeding in many health units in Ontario and in other provinces, on a five-fold vaccine which contains, in addition to inactivated measles vaccine, the antigens which confer protection against tetanus, diphtheria, whooping cough and poliomyelitis. Our code name for this new multiple vaccine is Quint. The advantage of Quint is that it provides in one injection all five antigens required for basic immunization of infants beginning at the age of three months. The live virus measles vaccines which are generally available are not very effective under the age of 6 or 8 months because many, if not most, infants have antibodies derived from the blood of their mothers. The maternally derived antibodies gradually disappear over a period of months, but while they are present they prevent a "take" by the live measles vaccine. The inactivated measles vaccine given at three, four and five months of age is designed to stimulate the production of antibodies more predictably in infants during the vulnerable period from say five months to one year or more of age. During the second year, live virus measles vaccine should be given to provide more lasting protection.

One purpose of the clinical trial was to determine whether the inactivated vaccine may prevent a "take" by live virus measles vaccine given six or eight months later, and whether it reduces the severity of the reaction to the live virus vaccine. The trials have been successful so far in demonstrating that the inactivated vaccine did not prevent "takes" by the live virus vaccine given subsequently, i.e., the live virus vaccine caused large increases in the circulating antibodies of the infants. The inactivated vaccine did, however, so modify the reaction to the live vaccine that side effects were negligible.

The long period of waiting to observe the delayed effects of the inactivated vaccine and the large number of cases required by modern regulations has meant that the trials started in May 1967 were not all finished by June 1968. We hope that they will be completed satisfactorily before the end of 1968, and that Quint will be licensed soon after that.

While the trials referred to above were in progress we were dismayed to learn of observations in the United States which suggested that inactivated measles vaccine could sensitize recipients so that allergic reactions occurred when the same persons were given live measles vaccine, or if they contracted natural measles. A result of these observations was a condemnation of inactivated measles vaccine by the American Pediatric Society. The repercussions in Canada were disconcerting and prompted a thorough investigation.

Clinical surveillance for possible allergenic effects of the Connaught inactivated measles vaccine was greatly intensified. None were found. None were reported from Europe where inactivated measles vaccine had been used. The suspicion grew that the allergenic effect could be attributed only to the inactivated vaccine of one manufacturer in the United States. The suspicion was confirmed by a series of tests done by our immunochemists. It became clear that the offending vaccine was manufactured by a different process from the one used in Canada and in Europe and that the process used in the USA greatly increased the sensitizing tendency of that vaccine. The

blanket condemnation of all inactivated measles vaccines was certainly premature. We believe that they have an important role in the immunization of infants.

German Measles (Rubella)

The development of a vaccine against German measles continues to be, for most of the laboratories engaged in the quest, a story of hope deferred. In last year's report we announced that an attenuated strain of rubella virus developed at the National Institutes of Health, USA, and grown in tissue cultures of chick cells showed great promise. When the live vaccine prepared from this strain was tried in humans, it proved to be so attenuated that it induced no production of antibodies. So, it was back to the work-bench for our scientists, as well as those of the NIH, to produce a more effective strain of attenuated rubella virus.

One very competent firm in the USA may have won the race. It has announced a rubella vaccine grown in duck embryo cells. A firm in Belgium has announced a vaccine grown in rabbit kidney cells. For various reasons rabbit kidney cells will not commend themselves to vaccine controllers in the USA or in Canada, as a source of a live vaccine. We are becoming more conscious every year of the possibilities of unknown viruses turning up in animal cell cultures. Vaccine controllers are, therefore, becoming more cautious than ever.

In spite of the intense competition among many firms and some government laboratories to produce the first acceptable rubella vaccine, there is a remarkable degree of sharing of information. An international conference to compare results, and perhaps to announce triumphs, will be held in London in November 1968. A representative from the Connaught Laboratories will be there.

Rabies

A year has passed since our first clinical trials of a new inactivated rabies vaccine produced from virus grown in tissue culture were reported. Experience continues to be favourable with the use of this vaccine for the elective immunization of persons who risk an exposure to rabies in the course of their work. Such persons include veterinarians and animal handlers who have become very conscious of the hazards to which they are exposed as the number of rabid animals reported in Ontario shows no sign of decreasing. The process of obtaining a government licence to distribute a new vaccine has become more involved and time-consuming as it has for all other new drugs. Nevertheless, we hope that a licence for the distribution of the new vaccine will be granted during 1968, and that provincial governments will make it available without charge for prophylactic administration to persons at risk.

During the coming year, it is hoped that sufficient data from clinical trials in humans will be accumulated to permit the use of this new vaccine in the post-exposure treatment of individuals bitten by rabid animals.

Poliomyelitis

In the peak year of 1953 nearly four thousand cases of paralytic poliomyelitis were reported in Canada. In preceding and subsequent years figures of a thousand to fifteen hundred cases were not uncommon.

In 1955 Poliomyelitis Vaccine (Salk) was introduced. Because the amount available was limited it was given only to children in the early grades of the primary schools. The incidence of paralytic poliomyelitis began that year to decline dramatically.

It was in 1962 that Poliovirus Vaccine (Sabin) which is given by mouth was introduced in Canada. The oral vaccine is now used in nearly all countries and exclusively in many countries. It is cheaper than the Salk type vaccine, it controls epidemics more effectively, and it is easier to administer. Since 1964 only two or three cases of paralytic poliomyelitis have been reported in Canada each year. By the end of June 1968 no cases had been reported.

The Salk type of Poliomyelitis Vaccine (inactivated) continues to be useful. It

can be combined in one injection with other antigens required for the basic immunization of infants. An improved form of Salk vaccine called Purified Poliomyelitis Vaccine was introduced by the Laboratories three years ago. It is also concentrated with respect to the important type 1 antigen. In this form the compatibility of the inactivated vaccine with many other antigens is greatly improved.

In the Province of Ontario, Poliomyelitis Vaccine (inactivated), combined with other antigens, has been used almost exclusively for the immunization of children against polio. If the question is asked whether the injected vaccine is as effective as the oral vaccine the answer must be "yes," under the conditions in Ontario. No cases of paralytic poliomyelitis have been reported in Ontario since 1964.

Green Monkey Disease

On September 7, 1967, we received a telegram from the Division of Biologics Standards in Bethesda, Maryland, warning us of a strange haemorrhagic disease which had appeared in two laboratories in Germany. Twenty-nine cases with six deaths had occurred among laboratory workers. Two cases (one fatal) were in hospital personnel who had attended the patients. All cases were associated with one or two shipments of African Green monkeys. Many laboratories in many countries (including Connaught) use African Green monkeys for the production of Oral Poliovirus Vaccine (Sabin). The news of a strange and potentially fatal disease transmitted by the Green monkey spread consternation around the world. Production of Sabin vaccine was suspended in many countries. Extra precautions and tests were introduced. At least a dozen laboratories participated in the search to identify the infectious agent which was presumably a virus.

Now after many months, the facts are reasonably clear. Only a few shipments of monkeys from Uganda in late July 1967 were implicated. No evidence of the strange disease was detected in any country outside of Germany, except in Jugoslavia where some monkeys from one of the suspected shipments had been sent. The virus was eventually characterized as one which was hitherto unknown. Tests for it were developed. It was reassuring to learn that if an infected shipment of monkeys had come to Canada, the usual precautions of quarantine which have been in force for many years in the Connaught Laboratories would have led to the detection of the disease and the destruction of the animals.

The mode of transmission of the disease in nature is still not known, but it may be significant that none of the cases in humans occurred in those engaged in the care and feeding of the animals. All primary cases were in laboratory workers handling tissues or blood. Laboratory workers in the field of infectious diseases are always at risk, a fact which tends to be forgotten when years pass with no tragic incident.

J. K. W. FERGUSON

THE DIRECTOR OF THE UNIVERSITY OF TORONTO PRESS

The Press's monthly periodical, *Press Notes*, has continued to provide a detailed account of activities and changes within the departments of this division. Under the editorship of the Assistant Director, Eleanor Harman, it has served since its founding nine years ago both as a news bulletin and as a vehicle for the dissemination of technical articles in the several fields of interest of the Press. Well-edited and well-produced, it has earned a continuous flow of appreciative comments from every part

of Canada and from abroad. As a consequence of the completeness of the record provided by *Press Notes*, the present annual report may be restricted to a listing of the most important developments and to comments on policy matters which we consider to be of pressing importance.

The University of Toronto Press now employs 418 persons in its publishing, printing, and bookselling departments. Its list of 102 published books during the past twelve months places it within the five most productive presses among the seventy-odd university imprints represented by the Association of American University Presses; it has for many years been the most productive book publisher in Canada, the scholarly service provided by the books and journals which it edits and publishes being as unique in this country as is the importance of that service to the Canadian academic community everywhere.

The accounting department has continued to mechanize its procedures during the past year, the separately established data processing department which is responsible to it having now absorbed the plant costing, accounts payable, and accounts receivable operations. This has permitted, for example, the listing and aging of all accounts receivable for management review and for the application of co-ordinated collection policies. A comprehensive system has been devised for breaking down budgeted and actual operating figures into accounts which can be made the practical responsibility of the department heads concerned. This new system of responsibility accounting will come into operation after the end of the year being reported upon here.

The publications order department has been reorganized to permit the integration of all its routine procedures with the data processing department. A long-standing agency arrangement with the University of Chicago Press was brought to a friendly termination by the Press during the year in order to permit all publishing departments to give their undivided attention to the Toronto programme. It should be recorded, nonetheless, that the fifteen-year association with Chicago was mutually beneficial in the opinions of both houses, and provided Toronto with the administrative and sales momentum that it needed to build its own list, particularly during the early part of that period. This past March marked the opening in Buffalo, New York, of an American branch office of the University of Toronto Press, a development that had been fully justified in advance by the impressive growth of publications sales to the United States. Another important step was the adoption and implementation by the end of June of Standard Book Numbers, a new international system of coding all books in print which will soon become used throughout Britain, the United States, Australia, and Canada. Toronto thus became the first Canadian publisher, and one of the first North American publishers, to make the not uncompllicated transition to Standard Book Numbers, which will appear throughout its fall catalogue and will be widely used for ordering and accounting purposes.

The former Design and Production Department, in response to the stimulus of growth during the year, divided along functional lines into two departments. The consequent appointment of Allan Fleming as Chief Designer to manage the new Design Department brought to the Press the most celebrated of Canadian typographic designers.

The year just ended marked publication by a special committee of the book industry chaired by the Business Manager of the Press, Harald Bohne, of the first edition of *Canadian Books in Print*. This two-volume work, comprising almost 850 pages, is a milestone in Canadian book publishing, and fills an important gap in the reference works used by librarians and booksellers throughout the world.

The four branches of the University of Toronto Bookstores continued to expand their services qualitatively as well as quantitatively. An exhibition of scholarly books published in Israel was mounted during the year, to be reciprocated later by a similar display in Jerusalem and Tel-Aviv of our own publications. A special seminar on bookselling was organized for the bookstores being established by the newly established Colleges of Applied Arts and Technology. The wisdom of introducing self-service in

the distribution of textbooks through the new textbook store was amply demonstrated by the reduction of congestion and improvement in service possible during the last college opening period. A special study of college stores undertaken by the Students' Administrative Council was published during the year, and the comparisons it contained with bookstore services at other Canadian campuses were cause for much satisfaction on the part of our own bookstore management. However, this satisfaction has at no time been mixed with complacency, as the following observations regarding future policy with respect to textbook distribution at this institution will indicate.

Last year's report raised the question whether the net cost of distributing textbooks (on a comprehensive scale and at the discounts requested) was a proper charge against the university's scholarly publishing arm, i.e., whether the long-term academic interests of research publishing might not be less than fully served because of the Press's present responsibility to underwrite the total net cost of operating an adequate textbook distribution service. The University of Toronto Press now furnishes, without assistance from other university funds, the support necessary to maintain a major programme of publishing of scholarly books and journals; it earns the funds to do this from its other publishing and printing operations, all of which must be conducted with a high degree of commercial efficiency because they are, quite properly, required to meet all their true costs. In response to the question raised in last year's report, the university has indicated its willingness to lend money to the Press at normal interest in order that present financial responsibilities may continue unaltered. So long as the full implications of the net operating results of the Press are read in the light of this policy, and so long as the Press can generate sufficient net income to underwrite the textbook distribution service without limiting its support of research publishing, it would appear to be advantageous for the Press to subsidize the textbook store. But among the important questions that remain are these: (a) Is the Press providing the leadership in academic research publishing which its demonstrated technical capacity would permit and which is consistent with the status of its parent institution? (b) Is adequate financial provision being made by the Press for the continued development of its typesetting and printing facilities in relation to the technological revolution that is occurring in the graphic arts industry today, especially in the United States? We must express the view that both these questions should be answered in the negative, and this chiefly because, in future, costs resulting from the Press being asked to underwrite the costs of distributing other publishers' textbooks to students must continue to increase if student expectations of discounts are to be fully realized.

Our concern regarding future university policy with respect to the sales of textbooks is not confined to the question of financial responsibility, unique though that Toronto problem is in the whole spectrum of university presses in North America. We are deeply concerned, and have so reported on various occasions, by some of the policy dilemmas which a university must resolve if it is to assume the responsibility of operating what is, after all, a service department that exists primarily for the benefit of the student body. Should such a service department extend credit privileges to its customers? Should it provide a special order service? Should it sell profitable lines of miscellaneous merchandise in order to finance larger discounts? Should it give discounts that require the budgeting of an operating loss? Should it extend its service, e.g., by expanding its inventory of reference books, if the alternative is to increase discounts?

It has been our conviction for some while that completely satisfactory answers to these and many other questions cannot be found so long as the constituency which the textbook store serves does not bear the responsibility for both management and financing. We perceive the problems that lie in the way of establishing a student-owned and student-operated co-operative to handle the distribution of textbooks, and ultimately perhaps of all books, but we believe that in the end it will be the one that is adopted. Whether or not an element of subsidy will be required will depend

on the nature of the service offered and the manner in which costs are imputed to it. But we should reiterate what we have said elsewhere, viz., that the problem is not confined to the University of Toronto, and that it probably deserves careful study at the level of the Provincial Department of University Affairs. We have long been of the opinion that the questions raised are the most pressing among those that involve relations between the university and its students, and we believe that the initiative for studying and resolving them should be taken by the university, if possible during the present summer.

It is important to add an expression of our appreciation for the loyalty, enthusiasm and high motivation of the management and staff of the Bookstores during the pressures of recent years. In particular, Charles Fanning, General Manager of the Bookstores, John Taylor, Manager of the Textbook Store, and David Stimpson, Manager of the University Bookroom, have shown admirable flexibility, patience and good humour during prolonged discussions of such matters as are mentioned here.

There follows the complete list of books published during 1967-68 over the imprint of this institution. Titles marked with asterisks have been published in collaboration with a publisher abroad, and have therefore involved either the sale or the purchase of a separate edition. The increasingly international character and importance of the list will be self-evident.

*Electromagnetic Distance Measurement: A Symposium**

Anthony H. Richmond: *Post-War Immigrants in Canada*

James Innis Stewart: *Real Estate Appraisal*

John N. Deck: *Nature, Contemplation, and the One: A Study in the Philosophy of Plotinus*

W. S. McCullough: *Jewish and Mandaean Incantation Bowls in the Royal Ontario Museum*

W. B. Scott and W. H. Garrick: *Freshwater Fishes of Eastern Canada*, Second edition

Peter G. Richards: *Parliament and Foreign Affairs**

Richard D. Mandell: *Paris 1900: The Great World's Fair*

Yousuf Karsh: *Karsh Portfolio**

Robert C. Culley: *Oral Formulaic Language in the Biblical Psalms*

John Stuart Mill: *Essays on Economics and Society*. Introduction by Lord Robbins, Textual editor, John M. Robbins (2 vols.)*

J. J. Saastamoinen: *Surveyor's Guide to Electromagnetic Distance Measurement*

John M. Robson, ed.: *Editing Nineteenth-Century Texts*

Mark R. MacGuigan: *Cases and Materials on Creditors' Rights*

Constance Rover: *Women's Suffrage and Party Politics in Britain, 1866-1914**

Craig R. Brown, ed.: *Upper Canadian Politics in the 1850's*

Gerson David: *Patterns of Social Functioning in Families with Marital and Parent-Child Problems*

Paul Thompson: *Socialists, Liberals, and Labour: The Struggle for London 1885-1914**

Carl Berger, ed.: *Approaches to Canadian History*

Reginald G. Smart, Thomas Storm, Earle F. W. Baker, Lionel Solursh: *Lysergic Acid Diethylamide (LSD) in the Treatment of Alcoholism: An Investigation of Its Effects on Drinking Behaviour, Personality Structure, and Social Functioning*

Paul Smith: *Disraelian Conservatism and Social Reform**

J. B. Greenhill: *Westcountrymen in Prince Edward's Isle**

S. G. Triantis: *Cyclical Changes in Trade Balances of Countries Exporting Primary Products, 1927-1933: A Comparative Study of Forty-Nine Countries*

N. H. Lithwick: *Economic Growth in Canada: A Quantitative Analysis*

Burton R. Pollin: *Godwin Criticism: A Synoptic Bibliography*

R. D. Symons: *Hours and the Birds: A Saskatchewan Record*

C. E. Dolman, ed.: *Water Resources of Canada/Ressources hydrauliques du Canada*

A. W. Currie: *Canadian Transportation Economics*

M. Blaug, M. H. Peston, and A. Ziderman: *The Utilization of Educated Manpower in Industry: A Preliminary Report**

Hans Bekker-Nielsen: *Old Norse-Icelandic Studies: A Select Bibliography*

John W. Yolton: *Metaphysical Analysis**

I. Strelis and R. W. Kennedy: *Identification of North American Commercial Pulpwoods and Pulp Fibres*

John I. Rempel: *Building with Wood and other Aspects of Nineteenth-Century Building in Ontario*

Watson Kirkconnell: *A Slice of Canada: Memoirs*

Thomas H. Clark, ed.: *Appalachian Tectonics*

R. L. Granatstein: *The Politics of Survival: The Conservative Party of Canada 1939-1945*

- J. S. Hart and S. Takasu, eds.: *Systems and Computer Science*
 Marston LaFrance, ed.: *Patterns of Commitment in American Literature*
 D. J. Conacher: *Euripidean Drama: Myth, Theme and Structure*
 Robert C. Walton: *Zwingli's Theocracy*
 Mary L. Northway: *A Primer of Sociometry*, 2nd edition
 T. Ritchie: *Canada Builds, 1867-1967*
 William F. E. Morley: *The Atlantic Provinces*
 George Fletcher Henderson: *Federal Royal Commissions in Canada, 1867-1966: A Checklist*
 J. Crofts: *Packhorse, Waggon and Post: Land Carriage and Communications under the Tudors and Stuarts**
 J. C. Jones and J. E. McDonough, eds.: *The Toronto Legal Directory, 1968*
 Aldwyn B. Stokes, ed.: *Psychiatry in Transition, 1966-1967*
 Denton W. Crocker and David W. Barr: *Handbook of the Crayfishes of Ontario*
 John W. Thomson: *The Lichen Genus Cladonia in North America*
Transactions of the American Ophthalmological Society, Vol. LXV, 103rd Meeting, 1967
 William C. Morton: *The Harmony of Verse*
 James C. S. Wernham: *Two Russian Thinkers: An Essay in Berdyaev and Shestov*
 D. G. Mowatt and Hugh Sacker: *The Nibelungenlied: An Interpretative Commentary*
 Loraine Spencer and Susan Holland: *Northern Ontario: A Bibliography*
 W. A. C. H. Dobson: *The Language of the Book of Songs*
 J. Mackay Hitsman: *Safeguarding Canada, 1763-1871*
 Lillian F. Gates: *Land Policies of Upper Canada*
 Kenneth Hare: *On University Freedom in the Canadian Context*
 Jack Warwick: *The Long Journey: Literary Themes of French Canada*
 Roy McKeen Wiles: *Scholarly Reporting in the Humanities*, 4th edition
 Ragnhild Hatton and J. S. Bromley, eds.: *William III and Louis XIV: Essays 1680-1720 by and for Mark A. Thomson**
 Michael Hurst: *Parnell and Irish Nationalism**
 T. R. G. Gray and D. Parkinson, eds.: *The Ecology of Soil Bacteria: An International Symposium**
 Constantine Bida and Vera Rich: *Lesya Ukrainka*
 O. E. Lang, ed.: *Contemporary Problems of Public Law in Canada: Essays in Honour of Dean F. C. Cronkite*
 J. C. Jones and J. E. McDonough, eds.: *Canadian Insurance Claims Directory, 1968*
 Gad Horowitz: *Canadian Labour in Politics*
 Richard H. Leach, ed.: *Contemporary Canada**
 Erwin Kreyszig: *Introduction to Differential Geometry and Riemannian Geometry**
 Derek H. Aldcroft, ed.: *The Development of British Industry and Foreign Competition 1875-1914**
 Sir John Crawford: *Australian Trade Policy, 1942-1966: A Documentary History**
 Anna Cienciala: *Poland and the Western Powers, 1938-1939**
 H. Edward English, ed.: *World Trade and Trade Policy*
 W. H. G. Armytage: *Yesterday's Tomorrows: A Historical Survey of Future Societies**
 F. P. J. Rimrott and J. Schwaighofer, eds.: *Mechanics of the Solid State*
 Gerald McCaughey and Maurice Legris, eds.: *Of Several Branches: Essays from the Humanities Association Bulletin*
 Donald G. Brown: *Action*
 Michael S. Batts and Marketa Goetz Stankiewicz, eds.: *Essays on German Literature in Honour of G. Joyce Hallamore*
 Edwin C. Guillet: *Pioneer Arts and Crafts*
 Yi-fu Tuan: *The Hydrologic Cycle and the Wisdom of God: A Theme in Geoteleology*
 Wolfgang Schmidt, Reginald G. Smart and Marcia K. Moss: *Social Class and the Treatment of Alcoholism: An Investigation of Social Classes as a Determinant of Diagnosis, Prognosis and Therapy*
 Edwin C. Guillet: *The Lives and Times of the Patriots*
 William Rodney: *Soldiers of the International: A History of the Communist Party of Canada, 1919-1929*
 Constantin Brunner: *Science, Spirit, Superstition: A New Inquiry into Human Thought**
 Claude T. Bissell: *The Strength of the University*
 Ronald J. Williams: *Hebrew Syntax: An Outline*
 Ramsay Cook, ed.: *Politics of Discontent*
 Ramsay Cook, ed.: *Confederation*
 C. B. Macpherson, Chairman: *Undergraduate Instruction in Arts and Science*
 V. Victor Kingsley: *Bacteriology Primer in Air Contamination Control*
 David W. Slater: *World Trade and Economic Growth: Trends and Prospects with Applications to Canada*
 H. Edward English: *Transatlantic Economic Community: Canadian Perspectives*
 Harry G. Johnson, Paul Wonnacott and H. Shibata: *Harmonization of National Economic Policies under Free Trade*
 John H. G. Crispo, ed.: *Wages, Prices, Profits, and Economic Policy: Proceedings of a Conference held by the Centre for Industrial Relations, University of Toronto, 1967*

CANADIAN UNIVERSITY PAPERBOOKS

- W. E. Blatz: *Human Security: Some Reflections*
W. B. Scott: *Freshwater Fishes of Eastern Canada*
Marston LaFrance, ed.: *Patterns of Commitment in American Literature*
James Eayrs: *In Defence of Canada, Vol. II; Appeasement and Rearmament*
H. S. Wilson: *On the Design of Shakespearian Tragedy*
Clifford Leech: *Twelfth Night and Shakespearian Comedy*
G. M. A. Grube: *The Greek and Roman Critics*
S. D. Clark: *The Suburban Society*
John A. Irving: *The Social Credit Movement in Alberta*
Edwin C. Guillet: *Pioneer Arts and Crafts*
Edwin C. Guillet: *The Lives and Times of the Patriots*
Claude T. Bissell: *The Strength of the University*

M. JEANNERET

Publications

SPECIAL PROFESSORSHIPS

- FRYE, H. N. *Fools of Time: Studies in Shakespearean Tragedy* (The Alexander Lectures). Toronto: University of Toronto Press, 1967. Pp. viii, 121.
- "The Instruments of Mental Production"; in *The Knowledge Most Worth Having*, ed. Wayne C. Booth, pp. 59–83. Chicago: University of Chicago Press, 1967.
- "The Knowledge of Good and Evil"; in *The Morality of Scholarship*, ed. Max Black, pp. 3–28. Ithaca: Cornell University Press, 1967.
- "Literature and Myth"; in *Relations of Literary Study*, ed. James Thorpe, pp. 27–55. New York: Modern Language Association of America, 1967.
- *The Modern Century* (The Whidden Lectures, McMaster University). Toronto: Oxford University Press, 1967. Pp. 123.
- *A Study of English Romanticism*. New York: Random House, 1968. Pp. vi, 180.
- SHEFFIELD, E. F. "Higher Education" in "Canada"; in *Encyclopedia Americana*, 1968 edition, vol. 5, pp. 408–10. New York: Grolier Society, 1968.
- "Letters in Canada: 1966 – Education" (*University of Toronto Quarterly*, vol. 36, no. 4, July 1967, pp. 495–523).
- "Post-Secondary Education in Canada/Enseignement post-secondaire au Canada"; in *Canadian Universities and Colleges/1968/Universités et Collèges du Canada*, ed. Rosemary A. Cavan, pp. xv–xxii. Ottawa: Association of Universities and Colleges of Canada, 1968.
- "The Universities of Canada" (revised); in *Commonwealth Universities Yearbook, 1968*, ed. John F. Foster, pp. 981–97. London: Association of Commonwealth Universities, 1968.
- SWINTON, W. E. *Digging for Dinosaurs* (Japanese edition). Tokyo: Fukuinkan Shoten, 1967. Pp. 32.
- *Dinosaurs* (3rd ed.). London: British Museum (Natural History), 1967. Pp. 46.
- "Dinosaurs" (*Encyclopedia Americana*, New York, 1968).
- *The Earth Tells Its Story*. London: The Bodley Head, 1967. Pp. 32.
- *Giants, Past and Present*. London: Robert Hale, 1966. Pp. 192.
- "Polygamy in an Academic Society" (*University of Toronto Graduate*, spring 1968, pp. 54–60).
- Reviews, *Canadian Scientist*, vol. 1, 1967, p. 26; *Globe Magazine*, June 22, 1968.

FACULTY OF ARTS AND SCIENCE

ANTHROPOLOGY

- ANDERSON, J. E. "The Human Skeletons"; in *The Prehistory of the Tehuacan Valley*, vol. 1, ed. D. S. Byers, pp. 91–113. Austin: University of Texas Press, 1967.
- *The Serpent Mound Site Physical Anthropology*. Toronto: Royal Ontario Museum, 1968. Pp. 97.
- "Skeletal Anomalies as Genetic Indicators"; in *The Skeletal Biology of Earlier Human Populations*, ed. D. R. Brothwell, pp. 135–47. London: Pergamon Press, 1967.

- CARSTENS, W. P. Introduction; in *The Present State of the Cape of Good Hope: Containing a Particular Account of the Several Nations of the Hottentots*, by Peter Kolb (1731), pp. v-xi. New York: Johnson Reprint Corporation, 1968.
- "The South African Farm Labourer: Full Employment for the Majority?" (*Manpower and Unemployment Research in Africa*, vol. 1, no. 1, April 1968, pp. 14-19).
- Reviews, *Journal of Asian and African Studies*, vol. 2, nos. 3-4, July/Oct. 1967, pp. 281-2, 302-3; *International Journal*, vol. 23, no. 1, winter 1967-68, pp. 176-7; *Man*, *Journal of the Royal Anthropological Institute*, n.s. vol. 3, no. 1, March 1968, p. 152.
- CHEW, J. J. *The Subject in the Deep Structures of English and Japanese*, published in the Papers of the C.I.C. Far Eastern Language Institute of the University of Michigan, 1967.
- HUGHES, D. R. "The Biology of Race"; in *Race: A Christian Symposium*, ed. C. S. Hill and D. Mathews, pp. 89-103. London: Gollancz, 1968.
- "Skeletal Plasticity and its Relevance in the Study of Earlier Populations"; in *The Skeletal Biology of Earlier Human Populations*, ed. D. R. Brothwell, pp. 31-55. Oxford: Pergamon Press, 1968.
- HUGHES, D. R., and DENSTON, C. B. "Part II: The Human Remains from the Tooth Cave, Gower" (*Bulletin of the Board of Celtic Studies*, vol. 22, part 3, 1967, pp. 285-90).
- HUGHES, D. R. (with Harp, E., Jr.) "Five Prehistoric Burials from Port-aux-Choix, Newfoundland" (*Polar Notes*, Occasional Publication of the Stefansson collection, Dartmouth College Library, no. 8, 1968, pp. 1-47).
- HURLEY, W. M. "The Silver Creek Sites" (47-MO-1 to MO-5); in *A Complex of Five Woodland Site Localities in Monroe County, Wisconsin*, pp. 1-337. Ann Arbor: University Microfilms, 1967.
- NAGATA, S. Review, *Journal of Asian and African Studies*, vol. 3, nos. 1-2, Jan./April 1968, pp. 138-40.
- PHILPOTT, S. B. Reviews, *Man*, *Journal of the Royal Anthropological Institute*, vol. 3, no. 2, June 1968, pp. 337-8, 339.
- SCHROEDER, H. B. "The Lithic Material from Jerf Ajla: a Preliminary Report" (*Annales Archéologique Arabes Syriennes*, vol. 16, no. 2, special Prehistory Volume, 1966).
- VANDERBURGH, R. *The Canadian Indian in Ontario's School Texts - A Study of Social Studies Textbooks Grades 1 through 8*. A report prepared for the University Women's Club of Port Credit, Ontario, 1968, based on research done by the Study Group on the Canadian Indian and Eskimo and distributed to government departments and educational institutions.
- WALLMAN, S. "The Farmech Project: Lesotho" (*African Affairs*, vol. 67, April 1968, pp. 112-17).
- YAMAGUCHI, B. *A Comparative Osteological Study of the Ainu and the Australian Aborigines*. Occasional Papers No. 10, Australian Institute of Aboriginal Studies, Canberra, 1967.

ASTRONOMY

- ANAND, S. P. S., and FAHLMAN, G. G. "Solar Rotation and the Perihelion Advance of Mercury" (*Icarus*, vol. 8, May 1968, pp. 492-502).
- BAKOS, G. A. "Photoelectric Photometry of Selected AG Stars in the 25° to 30° Zone" (*Astronomical Journal*, vol. 73, no. 3, April 1968, pp. 187-9). David Dunlap Communications No. 189.
- BARNES, T., VAN DEN BERGH, S., et al. "Nova Delphini 1967" (*Journal of the Royal Astronomical Society of Canada*, vol. 61, no. 5, Oct. 1967, pp. 339-42). David Dunlap Communications No. 165.
- BARNES, T. G. "A Search for Optical Variability in Seyfert Galaxies" (*Astrophysical Letters*, vol. 1, no. 5, May 1968, pp. 171-2). David Dunlap Communications No. 193.
- CRAMPTON, D., HEARD, J. F., and FERNIE, J. D. "Photometric and Spectroscopic Observations of HD 107904 (4 CVn)" (*Publications of the Astronomical Society of the Pacific*, vol. 79, no. 469, Aug. 1967, pp. 330-5). David Dunlap Communications No. 171.
- CRAMPTON, D., et al. "Comparative Velocities Obtained with Two Different Cassegrain Spectrographs" (*International Astronomical Union Symposium*, no. 30, 1967, pp. 49-51). David Dunlap Communications No. 174.
- CRAMPTON, D. (with Wallerstein, G.) "The Radial Velocity of RU Cam during its Recent Quiescent Phase" (*Astrophysical Journal*, vol. 149, no. 1, July 1967, pp. 225-7). David Dunlap Communications No. 167.
- FERNIE, J. D. "Classical Cepheids with Companions. III. 1 Cardinae" (*Astronomical Journal*, vol. 72, no. 5, June 1967, pp. 708-10).
- "Observational Evidence for Overtone Pulsations in Classical Cepheids" (*Astrophysical Journal*, vol. 151, no. 1, pt. 1, Jan. 1968, pp. 197-202). David Dunlap Communications No. 182.
- "A Recalibration of the Period-Luminosity and Period-Luminosity-Color Relations for Classical Cepheids" (*Astronomical Journal*, vol. 72, no. 10, Dec. 1967, pp. 1327-34). David Dunlap Communications No. 184.
- Review, *Journal of the Royal Astronomical Society of Canada*, vol. 62, no. 2, April 1968, pp. 78-9.
- FERNIE, J. D., and WATT, V. "RU Cam: Early Phases of Recovery" (*Astrophysical Journal*, vol. 150, no. 2, pt. 2, Nov. 1967, pp. L113-15). David Dunlap Communications No. 178.

- HARTWICK, F. D. A. "Stellar Evolution with Mass Loss" (*Astrophysical Journal*, vol. 150, no. 3, pt. 1, Dec. 1967, pp. 953-9). David Dunlap Communications No. 181.
- HEARD, J. F. "Astronomical Calculations"; in *Canadian Almanac*, pp. 1-25. Toronto: Copp Clark, 1968.
- HEARD, J. F., and FERNIE, J. D. "Spectrographic Orbit and Photometric Observations of HD 217312 in the III Cephei Association" (*Journal of the Royal Astronomical Society of Canada*, vol. 62, no. 3, June 1968, pp. 99-104). David Dunlap Communications No. 185.
- HEARD, J. F., and HOGG, H. S. "Astronomy at the David Dunlap Observatory" (*Journal of the Royal Astronomical Society of Canada*, vol. 61, no. 5, Oct. 1967, pp. 257-76).
- HOGG, H. S. "Astronomy"; in *McGraw-Hill Directory and Almanac of Canada*, pp. 470-500. Toronto: McGraw-Hill, 1968.
- "Report of the Committee on Variable Stars in Clusters" (*International Astronomical Union, Transactions*, vol. 13, Agenda and Draft Reports, 1967, pp. 555-65).
- "Results of the Canadian Program on Variables in Globular Clusters" (*Journal of the Royal Astronomical Society of Canada*, vol. 62, no. 2, April 1968, pp. 70-1).
- HUBE, D. "Three New Be Stars" (*Monthly Notes of the Astronomical Society of Southern Africa*, vol. 26, no. 8, Sept. 1967, pp. 109-10).
- MOFFAT, A. F. J. "New Variables in the Direction of M31" (*Astronomical Journal*, vol. 72, no. 10, Dec. 1967, pp. 1356-81). David Dunlap Communications No. 186.
- NORTHCOTT, R. J. (ed.). *The Journal of the Royal Astronomical Society of Canada*. Toronto: The Society, 1967, bi-monthly. Pp. 400.
- (ed.) *The Observer's Handbook for 1968*. Toronto: The Royal Astronomical Society of Canada. Pp. 100.
- Review, *Journal of the Royal Astronomical Society of Canada*, vol. 62, no. 3, June 1968, p. 131.
- PERCY, J. R. Review, *Journal of the Royal Astronomical Society of Canada*, vol. 61, no. 6, Dec. 1967, p. 387.
- ROEDER, R. C. "Cosmological Problems. I. The Time Scale" (*Journal of the Royal Astronomical Society of Canada*, vol. 61, no. 6, Dec. 1967, pp. 369-78). David Dunlap Communications No. 170.
- "Stellar Evolution and the Brans-Dicke Cosmological Theory" (*Astrophysical Journal*, vol. 149, no. 1, July 1967, pp. 131-8). David Dunlap Communications No. 164.
- Review, *Journal of the Royal Astronomical Society of Canada*, vol. 62, no. 2, April 1968, pp. 79-80.
- ROEDER, R. C., and CHAMBERS, R. H. "Blackbody Radiation and the Eddington-Lemaître Universe" (*Nature*, vol. 216, no. 5117, Nov. 1967, pp. 774-5). David Dunlap Communications No. 179.
- SCHMIDT-KALER, TH. "A Note on Emission B Stars in NGC 6530" (*Astrophysical Journal*, vol. 149, no. 3, Sept. 1967, pp. 719-20). David Dunlap Communications No. 173.
- SEAQUIST, E. R. "Linear Polarization at 42 cm of the Galactic Background in the Vicinity of $l_{II} = 140^\circ$, $b_{II} = 6^\circ$ " (*Astronomical Journal*, vol. 72, no. 10, Dec. 1967, pp. 1359-65). David Dunlap Communications No. 183.
- VAN DEN BERGH, S. "Apparent Visual Magnitudes of the Brightest Stars in Globular Clusters" (*Journal of the Royal Astronomical Society of Canada*, vol. 61, no. 4, Aug. 1967, pp. 179-83). David Dunlap Communications No. 160.
- "An Evolutionary Interpretation of Stars" (*Astrophysical Journal*, vol. 151, no. 3, pt. 1, March 1968, pp. 1191-3). David Dunlap Communications No. 187.
- "On the Helium Abundance in the Proto-Galaxy" (*Publications of the Astronomical Society of the Pacific*, vol. 79, no. 470, Oct. 1967, pp. 460-3). David Dunlap Communications No. 180.
- "Optical Observations of a Pulsating Radio Source" (*Astrophysical Journal*, vol. 152, no. 2, pt. 2, May 1968, p. L95). David Dunlap Communications No. 191.
- "Seven Colour Photometry of Globular Clusters" (*Information Bulletin for the Southern Hemisphere*, no. 11, Oct. 1967, p. 28).
- "The Source of Neutral Cosmic-Ray Primaries" (*Astrophysical Journal*, vol. 150, no. 2, pt. 2, Nov. 1967, p. L107). David Dunlap Communications No. 192.
- VAN DEN BERGH, S., and MOFFAT, A. F. J. "An RR Lyrae Variable Projected on the Andromeda Nebula" (*Zeitschrift für Astrophysik*, vol. 67, no. 3, Oct. 1967, pp. 246-8). David Dunlap Communications No. 177.
- VAN DEN BERGH, S., and RACINE, R. *Pre-Maximum Observations of Nova Delphini*. I.A.U. Information Bulletin on Variable Stars, no. 212. July 1967.

BOTANY

- BADENHUIZEN, N. P., and SALEMA, R. "Observations on the Development of Chloroamyloloplasts" (*Revista de Biologia*, vol. 6, no. 1-2, Jan. 1967, pp. 139-55).
- BANNAN, M. W. "Sequential Changes in Rate of Anticlinical Division, Cambial Cell Length, and Ring Width in the Growth of Coniferous Trees" (*Canadian Journal of Botany*, vol. 45, no. 8, Aug. 1967, pp. 1359-69).

- DUNBAR, R. W. "The Salivary Gland Chromosomes of Six Closely Related Black Flies near *Eusimulium Congareenarum* (Diptera: Simuliidae)" (*Canadian Journal of Zoology*, vol. 45, no. 4, July 1967, pp. 377-96).
- GREEN, W. G. E., and ISRAELSTAM, G. F. "Increased Sensitivity in Fluorometric Determinations of Nicotinamide Nucleotide Coenzymes" (*Canadian Journal of Biochemistry*, vol. 46, no. 4, April 1968, pp. 390-2).
- GRIFFIN, H. D. "The Genus *Ceratocystis* in Ontario" (*Canadian Journal of Botany*, vol. 46, no. 5, May 1968, pp. 689-718).
- HUTCHINSON, T. C. "Comparative Studies of the Ability of Species to Withstand Prolonged Periods of Darkness" (*Journal of Ecology*, vol. 55, no. 2, July 1967, pp. 291-9).
- "Coralloid Root Systems in Plants Showing Lime-Induced Chlorosis" (*Nature*, vol. 214, no. 5091, May 27, 1967, pp. 943-5).
- "The Development and Reversibility of Leaf Water Deficits in Plants Showing Lime-Induced Chlorosis" (*Journal of Ecology*, vol. 55, no. 3, Nov. 1967, Supplement page 53P).
- "Ecotype Differentiation in *Teucrium Scorodonia* with Respect to Susceptibility to Lime-Induced Chlorosis and to Shade Factors" (*The New Phytologist*, vol. 66, no. 3, July 1967, pp. 439-53).
- "Lime-Chlorosis as a Factor in Seedling Establishment on Calcareous Soils. I. A Comparative Study of Species from Acidic and Calcareous Soils in their Susceptibility to Lime-Chlorosis" (*ibid.*, no. 4, Oct. 1967, pp. 697-705).
- "A Physiological Study of *Teucrium Scorodonia* Ecotypes which Differ in their Susceptibility to Lime-Induced Chlorosis and Iron-Deficiency Chlorosis" (*Plant and Soil*, vol. 28, no. 1, Feb. 1968, pp. 81-106).
- HUTCHINSON, T. C. (with Grime, J. P.) "The Incidence of Lime-Chlorosis in the Natural Vegetation of England" (*Journal of Ecology*, vol. 55, no. 2, July 1967, pp. 557-66).
- ISRAELSTAM, G. F. "Anomalous Growth Response of Bean Plants in Iron-Deficient Media to Cyanide" (*Nature*, vol. 218, no. 5139, April 27, 1968, pp. 390-1).
- KRAUSE, M. O. "Tritiated Thymidine Effects on DNA, RNA, and Protein Synthetic Rates in Synchronized L-Cells" (*Journal of Cellular Physiology*, vol. 70, no. 2, Oct. 1967, pp. 141-53).
- MAXWELL, M. A. B., and WILLIAMS, J. P. "The Purification of Lipid Extracts Using Sephadex LH-20" (*Journal of Chromatography*, vol. 31, no. 1, Nov. 1967, pp. 62-8).
- "Separation and Estimation of the Galactolipid Components of Broad Bean Leaves" (*ibid.*, vol. 35, no. 2, June 1968, pp. 223-9).
- NALEWAJKO, C. (Mrs. C. Sparling) "Phytoplankton Distribution in Lake Ontario" (*University of Michigan Great Lakes Research Division*, Pub. no. 16, 1967, pp. 63-9). Published annually.
- ORLOB, G. B. "Relationships between *Tetranychus urticae* (Koch) and Some Plant Viruses" (*Virology*, vol. 35, no. 1, May 1968, pp. 121-33).
- ORLOB, G. B., *et al.* "Survival of Micro-Organisms in Space - Results of Gemini-IV-A, Gemini-XII, and Agena-VIII Satellite-Borne Exposure and Collection Experiments" (*Space Life Sciences*, vol. 1, 1968, pp. 118-30). Published annually.
- PATRICK, Z. A., *et al.* "Nature of Phytotoxic Substances produced during Plant Residue Decomposition in Soils" (*Phytopathology*, vol. 58, no. 1, Jan. 1968, pp. 41-5).
- SALEMA, R. and BADENHUIZEN, N. P. "The Production of Reserve Starch Granules in the Amyloplasts of *Pellionia daveauana* N. E. Br." (*Journal of Ultrastructure Research*, vol. 20, no. 5-6, Dec. 1967, pp. 383-99).
- SPARLING, J. H. "Assimilation Rates of Some Woodland Herbs in Ontario" (*The Botanical Gazette*, vol. 128, nos. 3-4, Sept.-Dec. 1967, pp. 160-8).
- YARRANTON, G. A. "An Instrument for Measuring the Microrelief of Bark" (*Canadian Journal of Botany*, vol. 45, no. 8, Aug. 1967, pp. 1173-8).
- "Organismal and Individualistic Concepts and the Choice of Methods of Vegetation Analysis" (*Vegetatio*, vol. 15, fasc. 2, Oct. 1967, pp. 113-16).
- "A Quantitative Study of the Bryophyte and Macrolichen Vegetation of the Dartmoor Granite" (*The Lichenologist*, vol. 3, part 3, 1967, pp. 392-408).

CHEMISTRY

- ALLEN, A. D., and BARRETT, P. F. "Kinetics of Some Substitution Reactions of the Group VI Metal Carbonyl Halides" (*Canadian Journal of Chemistry*, vol. 46, no. 10, May 1968, pp. 1655-61).
- "Phosphine-Substituted Carbonyl Halide Complexes of Chromium and Molybdenum" (*ibid.*, pp. 1649-53).
- ALLEN, A. D., and BOTTOMLEY, F. "Fixation of Atmospheric Nitrogen by Ruthenium Compounds" (*Canadian Journal of Chemistry*, vol. 46, no. 3, Feb. 1968, p. 469).
- ALLEN, A. D., BOTTOMLEY, F., HARRIS, R. O., REINSALU, V. P., and SENOFF, C. V. "Ruthenium Complexes containing Molecular Nitrogen" (*Journal of the American Chemical Society*, vol. 89, no. 22, Oct. 1967, pp. 5595-9).
- ALLEN, A. D., and STEVENS, J. R. "Nitrogenpentammineosmium (II) Complexes" (*Chemical Communications*, vol. 21, Nov. 1967, p. 1147).

- BARRADAS, R. G., and FRENCH, J. L. A. "Capillary Seals for Dropping Mercury Electrode Assembly" (*Analytical Chemistry*, vol. 39, no. 8, July 1967, p. 1038).
- BARRADAS, R. G., and KIMMERLE, F. M. "Effect of Acridinium Ions on the Reduction of $\text{Co}(\text{NH}_3)_6^{3+}$ at the Mercury Electrode" (*Analytical Letters*, vol. 1, no. 3, Dec. 1967, pp. 179-83).
- BARRADAS, R. G., and TAYLOR, D. F. "A Simplified Introduction to Operational Amplifiers in Polarographic and Other Voltammetric Studies" (*DENKI KAGAKU, Journal of the Japanese Electrochemical Society*, article translated into Japanese by T. Yoshida, May and June 1968).
- BEAMISH, F. E. "A Critical Review of Methods of Isolating and Separating the Noble Metals. II. Ion-Exchange and Solvent Extraction; III. Chromatography, Precipitation and Fire Assay" (*Talanta*, vol. 14, no. 9, Sept. 1967, pp. 991-1009; 1133-49).
- BEAMISH, F. E., and CHUNG, K. S. "The Simultaneous Determination of Ruthenium and Osmium by a Radiochemical Method" (*Analytical Letters*, vol. 1, no. 2, Nov. 1967, pp. 45-52).
- BEAMISH, F. E., and TAYLOR, H. "Isolation of Osmium and Ruthenium by Ion-Exchange Paper and Subsequent Determination by X-Ray Fluorescence" (*Talanta*, vol. 15, 1968, pp. 497-504).
- BERSOHN, M., and CHEN, H. L. J. "The Electron Paramagnetic Resonance Spectrum of an Unsaturated Ketone Negative Ion" (*Molecular Physics*, vol. 13, 1967, pp. 573-5).
- BERSOHN, M., and CHIANG, T. C. "The Electron Paramagnetic Resonance Observation of F^{19} Hyperfine Splittings in Cupric Complexes" (*Chemical Physics Letters*, vol. 1, no. 11, Jan. 1968, pp. 521-2).
- BERSOHN, M., SARKHAR, B., WIGFIELD, Y., and CHIANG, T. C. "Visible Optical Rotatory Dispersion and Paramagnetic Resonance Spectra of the L-histidine-Cu(II)-L-threonine Complex" (*Canadian Journal of Biochemistry*, vol. 46, no. 6, June 1968, pp. 595-600).
- BROOK, A. G., and ANDERSON, D. G. "Preparation and Reactions of Sulfoxides and Phosphine Oxides containing Silicon and Germanium" (*Canadian Journal of Chemistry*, vol. 46, June 1968, pp. 2129-34).
- BROOK, A. G., ANDERSON, D. G., DUFF, J. M., JONES, P. F., and MACRAE, D. M. "Inductive Effects in Acylsilanes and Acyldisilanes" (*Journal of the American Chemical Society*, vol. 90, no. 4, Feb. 1968, pp. 1076-8).
- BROOK, A. G., and FIELDHOUSE, S. A. "Reactions of Silyl and Germyl Ketones with Alkylidene-phosphoranes" (*Journal of Organometallic Chemistry*, vol. 10, no. 2, Nov. 1967, pp. 235-46).
- BROOK, A. G., JONES, P. F., and PEDDLE, G. J. F. "Bis(Metalloidal) Ketones" (*Canadian Journal of Chemistry*, vol. 46, June 15, 1968, pp. 2119-27).
- BROOK, A. G., LIMBURG, W. W., and MACRAE, D. M. "Stereochemistry of the Formation and Thermal Rearrangement of β -Ketosilanes" (*Journal of the American Chemical Society*, vol. 89, no. 21, Oct. 1967, pp. 5493-5).
- BURNS, G. "Flash Photolysis under Non-Isothermal Conditions" (*Canadian Journal of Chemistry*, vol. 45, no. 20, Oct. 1967, pp. 2369-74).
- BURNS, G., and IP, J. K. K. "A Communication" (*Discussions of the Faraday Society*, no. 44, Sept. 1967, pp. 278-83).
- "A Recombination of Br Atoms by Flash Photolysis over a Wide Temperature Range" (*ibid.*, pp. 241-51).
- BURNS, G., and LAWRENCE, T. R. "The Steady State Assumption and the Dissociation of Br_2 in Shock Waves" (*Sixth International Shock Tube Symposium, Ernst-Mach-Institut Wissenschaftlicher Bericht*, no. 4, 1968, pp. 158-70).
- BURNS, G., and LEROY, R. J. "A Method for Testing and Improving Molecular Constants of Diatomic Molecules with Special Reference to $\text{Br}_2^1\Sigma^+_g$ " (*Journal of Molecular Spectroscopy*, vol. 25, no. 1, Jan. 1968, pp. 77-85).
- BURNS, G., MORRIS, D. J., and LEROY, R. J. "Participation of Electronically Excited I_2 in Atomic Recombination Reaction" (*Bulletin of the American Physical Society, Series II*, vol. 12, no. 5, 1967, p. 638).
- CHIANG, T. C. "A Paramagnetic Resonance and Optical Study of Cupric Amine Complexes" (*Journal of Chemical Physics*, vol. 48, no. 4, Feb. 1968, pp. 1814-18).
- COOK, C. D., and JAUHAL, G. S. "The Chemistry of Low-Valent Complexes. II. Cyclic Azo Derivatives of Platinum" (*Journal of the American Chemical Society*, vol. 90, no. 6, March 1968, pp. 1464-7).
- CSIZMADIA, I. G. (with Rauk, A.) "Non-empirical SCF Calculations on Sulfur Atom, Hydrogen Sulfide and Dihydrogen Sulfoxide" (*Canadian Journal of Chemistry*, vol. 46, no. 8, April 1968, pp. 1205-14).
- CSIZMADIA, I. G., and ROBB, M. A. "Non-empirical LCAO-MO-SCF-CI Calculations on Organic Molecules with Gaussian Type Functions. Part IV. Preliminary Investigations on Formamide" (*Theoretica Chimica Acta*, vol. 10, no. 3, April 1968, pp. 269-84).
- CSIZMADIA, I. G. (with Seung, S. S., and Harrison, M. C.) "Non-empirical LCAO-MO-SCF-CI Calculations on Organic Molecules with Gaussian Type Functions. Part III" (*Theoretica Chimica Acta*, vol. 8, 1967, pp. 281-4).
- CSIZMADIA, I. G. (with Wolfe, S. and Rauk, A.) "Non-empirical Molecular Orbital Calculations of α -Sulfinyl Carbanions" (*Journal of the American Chemical Society*, vol. 89, no. 22, Oct. 1967, pp. 5710-12).

- DANYLUK, S. S., and UMEMOTO, K. "A Nuclear Magnetic Resonance Investigation of Molecular Motion in Urea- d_4 -n-Hydrocarbon and Urea- d_4 -Fatty Acid Adducts" (*Journal of Physical Chemistry*, vol. 71, no. 12, Nov. 1967, pp. 3757-64).
- "The Proton Magnetic Resonance Spectra of Ammonia Nickel Cyanide Clathrates" (*Journal of Physical Chemistry*, no. 2, Jan. 1967, pp. 450-2).
- DECKERS, J. M., and NDAALIO, G. "Energy Distribution in Electronically Excited CH and C₂ in Low Pressure Hydro-Carbon Flames" (*Canadian Journal of Chemistry*, vol. 45, no. 20, Oct. 1967, pp. 2441-9).
- DECKERS, J. M., YEALLAND, R. M., and LEROY, R. L. "The Ionization Gauge as a Species-Discriminating Detector for Molecular Beams" (*Canadian Journal of Chemistry*, vol. 45, no. 22, Nov. 1967, pp. 2651-7).
- DIGNAM, M. J. "Ion Transport in Solids under Conditions which Include Large Electric Fields" (*Journal of Physics and Chemistry of Solids*, vol. 29, no. 2, 1968, pp. 249-60).
- DIGNAM, M. J., and RYAN, P. J. "High Field Kinetic Processes in Anodic Oxide Films on Aluminium. I. Current Transients for Linearly Changing Electric Field Strength; II. Current Transients for Constant Field Conditions" (*Canadian Journal of Chemistry*, vol. 46, no. 4, Feb. 1968, pp. 535-48; 549-56).
- DOVE, J. E., CRESWELL, R. A., and DI VALENTIN, M. A. "Shock Tube Studies of Thermal Ionization of NO using Mass Spectrometric Detection" (*Proceedings of the 6th International Shock Tube Symposium*, Ernst Mach Institut, Freiburg-im-Breisgau, Germany, 1968, pp. 149-58).
- DOVE, J. E., and RIDDICK, J. R. "Concerning the Preparation of Anhydrous Hydrogen Peroxide" (*Canadian Journal of Chemistry*, vol. 46, no. 2, Jan. 1968, pp. 330-2).
- GUILLET, J. E. "Macromolecules" (*Chemistry in Canada*, vol. 19, no. 11, Nov. 1967, pp. 23-5).
- GUILLET, J. E., GOLEMBIA, F. J., and NYBURG, S. C. "Synthesis and Crystal Structure of Isotactic Poly(4-phenyl 1-butene)" (*Journal of Polymer Science*, vol. A1, no. 6, May 1968, pp. 1341-9).
- GUILLET, J. E., and HARTLEY, G. H. "Photochemistry of Ketone Polymers. I. Studies of Ethylene-Carbon Monoxide Co-polymers" (*Macromolecules*, vol. 1, March 1968, pp. 165-70).
- GUILLET, J. E., and HESKINS, M. "Mechanism of Ultraviolet Stabilization of Polymers" (*Macromolecules*, vol. 1, no. 1, Jan. 1968, pp. 97-8).
- GUILLET, J. E., and KELLS, D. I. C. "Direct Determination of Cross-Linking and Scission in Polymers" (*Journal of Polymer Science*, vol. A1, no. 6, March 1968, pp. 595-601).
- HARRISON, A. G., GUPTA, S. K., JONES, E. G., and MYHER, J. J. "Reactions of Thermal Energy Ions. VI. Hydrogen-Transfer Ion-Molecule Reactions involving Polar Molecules" (*Canadian Journal of Chemistry*, vol. 45, no. 24, Dec. 1967, pp. 3107-17).
- HARRISON, A. G., and JONES, E. G. "Ion-Molecule Reactions in Gaseous Methyl Amine" (*Canadian Journal of Chemistry*, vol. 45, no. 24, Dec. 1967, pp. 3119-28).
- HARRISON, A. G., and MYHER, J. J. "Ion-Molecule Reactions in Acetylene and Acetylene-Methane Mixtures" (*Canadian Journal of Chemistry*, vol. 46, no. 10, May 1968, pp. 1755-62).
- "Ion-Molecule Reactions on Propyne and Allene" (*Journal of Physical Chemistry*, vol. 72, no. 6, June 1968, pp. 1905-13).
- "Some Observations on the Ion-Molecule Reactions in Ethylene" (*Canadian Journal of Chemistry*, vol. 46, no. 2, Jan. 1968, pp. 101-9).
- HARRISON, A. G., and PRITCHARD, H. "The Heat of Formation of CHO⁺" (*Journal of Chemical Physics*, vol. 48, no. 6, March 1968, p. 2827).
- HARRISON, A. G., PRITCHARD, H., and THYNNE, J. C. J. "Ion-Molecule Reactions in Formic-d Acid and Methyl Formate" (*Canadian Journal of Chemistry*, vol. 46, no. 12, June 1968, pp. 2141-6).
- HARRISON, A. G., and THYNNE, J. C. J. "Concurrent Ion-Molecule Reactions. IV. Reactions in Mixtures of Ammonia with Deuterium and Methane; V. Reactions in Mixtures of Methyl Chloride with D₂ and CD₄" (*Transactions of the Faraday Society*, vol. 64, no. 4, April 1968, pp. 945-53; no. 5, May 1968, pp. 1287-95).
- JONES, J. B., and WIGFIELD, D. C. "Kinetics Evidence for Micellar Aggregates of the Δ^5 -3-Ketoisomerase of *Pseudomonas testosteroni*" (*Abstracts 7th International Congress of Biochemistry*, Tokyo, Aug. 1968, p. E-33).
- "Steroids and Steroidases. V. On the Mechanism of Action of the Δ^5 -3-Ketoisomerase of *Pseudomonas testosteroni*" (*Journal of the American Chemical Society*, vol. 89, Sept. 1967, p. 5294); VI. On the C-17 Specificity of the Δ^5 -3-Ketoisomerase of *Pseudomonas testosteroni* and Evidence for Substrate Micelle Formation" (*Canadian Journal of Chemistry*, vol. 46, no. 9, May 1968, pp. 1459-65).
- JONES, J. B., KOO, C. H., MELLOR, I. P., NYBURG, S. C., and YOUNG, J. M. "Carcinogenicity of Lactones. II. X-ray Crystal Structure Analyses of \pm 3-Benzylamino-4-Hydroxypentanoic Acid Lactone Hydrochloride and Hydrobromide" (*Canadian Journal of Chemistry*, vol. 46, no. 5, March 1968, pp. 813-14).
- JONES, J. B., and MIDDLETON, H. W. "How Cardiac Glycosides Stimulate the Heart" (*Chemistry in Canada*, vol. 19, no. 8, Aug. 1968, p. 14).
- JONES, J. B., and ZANDER, J. M. "Steroids and Steroidases. VII. A Unique Long-Range Directing Effect Exerted by the Cholestane C₆H₁₇ Group on the Formation of A-Homos-

- teroid Ketones" (*Canadian Journal of Chemistry*, vol. 46, no. 11, June 1968, pp. 1913-20).
- LE ROY, D. J., McALDUFF, J. E., and DRYSDALE, D. D. "The Role of Hg 6^3P_0 Atoms in Mercury Photosensitization. IV. Origin of the 4850A and 3350A Bands" (*Canadian Journal of Chemistry*, vol. 46, no. 2, Jan. 1968, pp. 199-206).
- LE ROY, D. J., RIDLEY, B. A., and QUICKERT, K. A. "Kinetics of the Four Basic Thermal Three-Centre Exchange Reactions of the Hydrogen Isotopes" (*Discussions of the Faraday Society*, vol. 44, 1967, pp. 92-107).
- Comment on "Quantum Theoretical Treatment of Equilibrium Chemical Rate Processes" (*Journal of Physical Chemistry*, vol. 72, no. 5, May 1968, pp. 1844).
- LISTER, M. W., and CHLEBEK, R. W. "Reaction between Alkali Metal Ferrocyanides and Persulphates in Aqueous Solutions" (*Canadian Journal of Chemistry*, vol. 45, no. 20, Oct. 1967, pp. 2411-18).
- LISTER, M. W., and KING, D. E. C. "The Reaction between Iodine and Sodium Bromate" (*Canadian Journal of Chemistry*, vol. 46, no. 2, Jan. 1968, pp. 279-86).
- LISTER, M. W., and LARSON, D. W. "Catalytic Decomposition of Acetonedicarboxylic Acid" (*Canadian Journal of Chemistry*, vol. 46, no. 6, March 1968, pp. 823-32).
- McLEAN, S., LIN, M.-S., and WHELAN, J. "The Total Synthesis of (\pm)-Ochotensimine" (*Tetrahedron Letters*, no. 20, March 1968, pp. 2425-8).
- NYBURG, S. C., CAMERMAN, N., and WEINBLUM, D. "The Crystal Structure of a Thymine Photodimer ("Thymer E")" (*Tetrahedron Letters*, no. 42, Oct. 1967, pp. 4127-9).
- NYBURG, S. C., and SZYMANSKI, J. T. "The Effective Shape of the Covalently Bound Fluorine Atom" (*Chemical Communications*, 1968, pp. 669-71).
- PAGE, J. A., ALLEN, A. D., and BONNYMAN, K. *Chemistry - An Introductory Study*. Toronto: W. J. Gage, July 1967. Pp. 303.
- POLANYI, J. C. "Dynamics of Chemical Reactions" (*Discussions of the Faraday Society*, vol. 44, Sept. 1967, pp. 293-307).
- "Energy Transfer in Molecular Systems" (*Transactions of the Royal Society (Canada)*, vol. 5, no. 4, June 1967, pp. 105-26).
- "Relation between Electron Affinity or Ionization Potential and Reaction Rate" (*Chemical Physics Letters*, vol. 1, no. 9, Nov. 1967, pp. 421-3).
- POLANYI, J. C., ANLAUF, K. G., and MACDONALD, R. G. "Infrared Chemiluminescence from $H + O_2$ at Low Pressure" (*Chemical Physics Letters*, vol. 1, no. 10, Feb. 1968, pp. 619-22).
- POLANYI, J. C., ANLAUF, K. G., MAYLOTTE, D. H., and PACEY, P. D. "Energy Distribution among Reaction Products. Part 2: $H + X_2$ and $X + HY$ " (*Discussions of the Faraday Society*, vol. 44, Sept. 1967, pp. 183-93).
- REYNOLDS, W. F. (with Schaefer, T., Macdonald, C. J., and Schwenk, R.) "Hindered Rotation in α , α , 2,6-Tetrachlorotoluene" (*Canadian Journal of Chemistry*, vol. 46, no. 11, June 1968, pp. 2817-18).
- ROBINSON, E. A., and CIRUNA, J. A. "The Chlorosulfuric Acid Solvent System. Part 1. Electrical Conductivity, Transport Number and Density Measurements on Solutions of Simple Bases" (*Canadian Journal of Chemistry*, vol. 46, no. 10, May 1968, pp. 1719-25).
- "Preparation and Infrared Spectra of Alkali and Alkaline Earth Metal Chlorosulfates" (*ibid.*, pp. 1715-18).
- ROBINSON, E. A. (with Gillespie, R. J.) "Cryoscopic and Conductimetric Measurements in Sulfuric Acid"; in *Carbocation Ions*, ed. G. A. Olah and von R. Schleyer, pp. 111-34. New York, London, Sydney: Interscience, 1968.
- ROBINSON, E. A., and QUADRI, S. A. A. "Use of Conductimetric Titrations in Dilute Oleum to Determine the Reactions of Complex Electrolytes in Sulfuric Acid" (*Canadian Journal of Chemistry*, vol. 45, no. 20, Oct. 1967, pp. 2385-9).
- "Behaviour of Carboxylic Acids and Carboxylic Anhydrides" (*ibid.*, pp. 2391-2402).
- SCHMID, G. H., and HEINOLA, M. "The Reaction of Sulfenyl Halides with Acetylenes" (*Quarterly Reports on Sulfur Chemistry*, vol. 2, no. 4, Dec. 1967, pp. 311-12).
- "Reactions of Sulfenyl Chlorides and their Derivatives. II. The Kinetics, Orientation and Stereochemistry of Addition of 2,4-Dinitrobenzenesulfenyl Chloride to 1-Phenylpropene" (*Journal of the American Chemical Society*, vol. 90, no. 13, June 1968, pp. 3466-9).
- STILL, I. W. J., and WANG, D. T. "Thermal and Photolytic Decomposition Reactions of Diazo Compounds in the Bicyclo-[4.1.0]heptane Series" (*Canadian Journal of Chemistry*, vol. 46, no. 9, May 1968, pp. 1583-6).
- THOMPSON, J. C. (with Beguin, C. P., Ezell, J. B., Salvemini, A., Vickroy, D. G., and Margrave, J. L.) "Chemical Syntheses in Radio-Frequency Plasma Torches"; in *The Application of Plasmas to Chemical Processing*, ed. R. F. Baddour and R. S. Timmins, pp. 35-54. Cambridge, Mass.: M. I. T. Press, 1967.
- THOMPSON, J. C. (with Ezell, J. B., Margrave, J. L., and Timms, P. L.) "The Chemical Reactions of High Temperature Species"; in *Advances in High Temperature Chemistry*, ed. L. Eyring, vol. 1, pp. 220-38. New York: Academic Press, 1967.
- THOMPSON, J. C. (with Hopkins, H. P., and Margrave, J. L.) "Electron Spin Resonance Studies of Silicon Difluoride" (*Journal of the American Chemical Society*, vol. 90, no. 4, Feb. 1968, pp. 901-2).
- VALLEAU, J. P., and CHAN, S. C. "Ultrasonic Study of Hydrochloric Acid Association in N,N-Dimethylformamide" (*Canadian Journal of Chemistry*, vol. 46, no. 6, March 1968, pp. 853-8).

- WRIGHT, G. F., and HUTZUL, M. G. "The 'Moscow' Method of Thin Layer Chromatography" (*Canadian Journal of Pharmaceutical Sciences*, vol. 3, no. 1, 1968, pp. 4-8).
- WRIGHT, G. F. (with Robinson, J. C., and Forbes, W. F.) "Free Radicals of Biological Interest. I. Electron Spin Resonance Spectra of Tobacco Smoke Condensates" (*Canadian Journal of Biochemistry*, vol. 45, 1967, pp. 1087-98).
- WRIGHT, G. F., WEINBLUM, P., and OTTENSMEYER, F. P. "The Structures of the Isomeric Thymine Dimers as Deduced from their Dipole Moments" (*Biochimica et Biophysica Acta*, vol. 155, 1968, pp. 24-31).
- YATES, K., AGOLINI, F., KLEMENKO, S., and CSIZMADIA, I. G. "The Electronic Spectra of Carbonyl Compounds. I. Spectra and Molecular Orbital Calculations for α -Silyl and α -Germyl Ketones" (*Spectrochimica Acta*, vol. 24A, no. 2, Feb. 1968, pp. 169-86).
- YATES, K., and THOMPSON, A. A. "The Relationship between Nitro Group Stretching Frequencies and Basicities of Substituted Nitrobenzenes" (*Canadian Journal of Chemistry*, vol. 45, Dec. 1967, pp. 2997-9).
- YATES, P. "The Photochemistry of Cyclic Ketones in Solution" (*Pure and Applied Chemistry*, vol. 16, no. 1, 1968, pp. 93-113).
- *Structure Determination*. New York: W. A. Benjamin, 1967. Pp. 176.
- YATES, P., et al. (eds.) *Organic Syntheses*, vol. 47. New York: John Wiley, 1967. Pp. 140.
- YATES, P. (with Ault, A.) "Dimethylmangostin Hydrochloride" (*Tetrahedron*, vol. 23, no. 8, Aug. 1967, pp. 3307-20).
- YATES, P., and BHAT, H. B. (with Stout, G. H., and Krahn, M. M.) "The Structure of Mangostin" (*Chemical Communications*, no. 4, Feb. 1968, pp. 211-12).
- YATES, P., and EGE, S. N. "The Photodimerization of 3-*p*-Anisyl-2-Cyclohexenone and 3-(*p*-Nitrophenyl)-2-cyclohexenone" (*Canadian Journal of Chemistry*, vol. 45, no. 23, Dec. 1967, pp. 2933-42).
- YATES, P., and EGE, S. N. (with Büchi, G., and Knutsen, D.) "The Photodimerization of 3-Phenyl-2-Cyclohexenone" (*Canadian Journal of Chemistry*, vol. 45, no. 23, Dec. 1967, pp. 2927-32).
- YATES, P., and FALLIS, A. G. "Decomposition of 1-Diazo-3-(2,2,3-trimethylcyclopent-3-enyl)-propan-2-one. A Novel Synthesis and Rearrangement of a Tricyclo[3.2.1.0^{3,6}]octan-4-one" (*Tetrahedron Letters*, no. 20, March 1968, pp. 2493-6).
- "The Photochemistry of Fenchone in Hydroxylic Medium" (*Tetrahedron Letters*, no. 46, Nov. 1967, pp. 4621-4).
- YATES, P., and LEWARS, E. "A Re-investigation of the Structure of a Putative Dibenzo[a,e]-cyclo-octenetrione" (*Chemical Communications*, no. 13, July 1967, pp. 622-3).
- YATES, P., and LEWARS, E. (with Stowell, J. K., and Wawzonek, S.) "Conversion of a Dibenzo[a,e]cyclo-octene-5,11-dione Derivative to an Indeno-isocoumarin" (*Chemistry and Industry (London)*, no. 11, March 1968, pp. 344-5).
- YATES, P., and LYNCH, T. (with Weiler, L. S.) "Mass Spectral Studies of some Desaurins and Related 3,5-Bismethylene-1,2,4-Trithiolanes" (*Canadian Journal of Chemistry*, vol. 46, no. 3, Feb. 1968, pp. 365-75).
- YATES, P., and MACGREGOR, D. J. "The Pyrolysis of the Cage Photodimer of 2,6-Dimethyl-4-pyrone" (*Chemical Communications*, no. 23, Dec. 1967, p. 1209).
- YATES, P. (with Williams, L.) "The Structure of the Product from Azibenzil and Carbon Disulfide" (*Tetrahedron Letters*, no. 10, Feb. 1968, pp. 1205-8).

CLASSICS

- COLE, J. W. "To Hell with Herodotus and Thucydides" (*Classical News and Views*, vol. 11, no. 3, 1967, pp. 53-62).
- CONACHER, D. J. *Euripidean Drama: Myth, Theme and Structure*. Toronto: University of Toronto Press, 1967; Oxford University Press, 1968. Pp. xiii, 354.
- "Themes in the *Exodus* of Euripides' *Phoenissae*" (*Phoenix*, vol. 21, 1967, pp. 92-101).
- Review, *Phoenix*, vol. 21, 1967, pp. 315-17.
- GRUBE, G. M. A. *How Did the Greeks Look at Literature* (the Semple Lectures). University of Cincinnati, 1967. Pp. 43.
- JONES, C. P. "A Friend of Galen" (*Classical Quarterly*, vol. 17, 1967, pp. 311-12).
- "Julius Naso and Julius Secundus" (*Harvard Studies in Classical Philology*, vol. 72, 1967, pp. 279-88).
- "The Younger Pliny and Jerome" (*Phoenix*, vol. 21, 1967, p. 301).
- LEE, M. O. "Orpheus and Eurydice: Myth, Legend, Folklore" (*Classica et Mediaevalia*, vol. 26, fasc. 1-2, 1965, pp. 402-12).
- MCLEOD, W. "The Bow in Ancient Greece, with Particular Reference to the Homeric Poems" (*Harvard Studies in Classical Philology*, vol. 71, 1967, pp. 329-31) (abstract).
- Reviews, *American Journal of Archaeology*, vol. 71, no. 4, Oct. 1967, pp. 419-20; *Phoenix*, vol. 21, no. 2, summer 1967, pp. 152, 154; no. 4, winter 1967, pp. 309-10.
- O'BRIEN, M. J. *The Socratic Paradoxes and the Greek Mind*. Chapel Hill: University of North Carolina Press, 1967. Pp. xiv, 249.
- Reviews, *American Journal of Philology*, vol. 89, no. 2, April 1968, pp. 227-31; *Phoenix*, vol. 21, no. 3, 1967, pp. 231-2.

- PHILIP, J. A. Review, *Classical Journal*, vol. 63, Oct. 1967, pp. 229-30.
- RIST, J. M. "Integration and the Undescended Soul in Plotinus" (*American Journal of Philology*, vol. 88, no. 4, Oct. 1967, pp. 410-22).
- "Plato on Knowledge and Value" (*Phoenix*, vol. 21, no. 4, 1967, pp. 283-95).
- *Plotinus: The Road to Reality*. Cambridge: Cambridge University Press, 1967. Pp. vii, 280.
- Reviews, *American Journal of Philology*, vol. 89, no. 1, Jan. 1968, p. 127; *Classical World*, vol. 61, no. 7, 1968, p. 305; *Journal of Hellenic Studies*, vol. 87, 1967, pp. 155-6; *Phoenix*, vol. 21, no. 3, 1967, pp. 229-31, 232-3; vol. 22, no. 2, 1968, p. 184.
- ROBINSON, T. M. "The Computer and Classical Languages" (*Classical News and Views*, vol. 11, 1967, pp. 39-46).
- "Demiurge and World Soul in Plato's *Politicus*" (*American Journal of Philology*, vol. 88, 1967, pp. 57-66).
- "The Proof of Immortality in Republic X" (*Phronesis*, vol. 12, 1967, pp. 147-51).
- Reviews, *Library Journal*, Jan. 1, 1968, p. 71; *Phoenix*, vol. 21, no. 2, 1967, pp. 141-3; no. 3, p. 232; *University of Toronto Quarterly*, vol. 37, 1967, pp. 90-102.
- SAMUEL, A. E. "The Days of 'Hesiod's' Month" (*Transactions of the American Philological Association*, vol. 97, 1966, pp. 421-9).
- "An Early Papyrus Text of Isocrates: P. Yale Inventory 2082, Essays Dedicated to H. P. Kraus"; in *Homage to a Bookman*, pp. 17-23. 1967.
- "Reviews and Comments" (*Bulletin of the American Society of Papyrologists*, vol. 5, 1968, pp. 41-5).
- (ed.) *The Bulletin of the American Society of Papyrologists*, vols. 4 and 5. New Haven and Toronto, 1967-68.
- Reviews, *Bibliotheca Orientalis*, vol. 24, 1967, pp. 173-4; *Bulletin of the American Society of Papyrologists*, vol. 4, 1967, p. 53; *Phoenix*, vol. 22, 1968, pp. 79-83.
- SAMUEL, A. E. (with Oates, J. F., and Welles, C. B.) *The Yale Papyri in The Beinecke Rare Book and Manuscript Library*, vol. I. New Haven and Toronto: American Society of Papyrologists, 1967. Pp. 288.
- SHERIDAN, J. J. "How Professor Grube Won a Coveted Award" (*University of Toronto Graduate*, vol. 1, no. 2, March 1968, pp. 28-32).
- SHIEL, J. *Greek Thought and the Rise of Christianity*. Problems and Perspectives in History Series. London: Longmans, 1968. Pp. xii, 161.
- SUMNER, G. V. "The Chronology of the Outbreak of the Second Punic War" (*Proceedings of the African Classical Associations*, vol. 9, 1966, pp. 5-30).
- "Cicero, Pompeius and Rullus" (*Transactions and Proceedings of the American Philological Association*, vol. 97, 1966, pp. 569-82).
- "Germanicus and Drusus Caesar" (*Latomus*, vol. 26, 1967, pp. 413-35).
- "Roman Policy in Spain before the Hannibalic War" (*Harvard Studies in Classical Philology*, vol. 72, pp. 205-46).
- THOMSON, D. F. S. Notice and Bibliography: "William Leonard Grant, 1914-1967" (obituary) (*Phoenix*, vol. 22, no. 1, 1968, pp. 1-2).
- Reviews, *Phoenix*, vol. 22, no. 2, summer 1968, pp. 168-70; *University of Toronto Quarterly*, vol. 37, no. 4, July 1968, pp. 477-82.
- WOODBURY, L. E. "Equinox at Acragas: Pindar, 01.2.61-62" (*Transactions of the American Philological Association*, vol. 97, 1966, pp. 597-616).
- "Helen and the Palinode" (*Phoenix*, vol. 21, no. 3, autumn 1967, pp. 157-76).

EAST ASIAN STUDIES

- BANDYOPADHYAY, P. "Assimilation in Sanskrit" (*Calcutta Review*, University of Calcutta, vol. 177, no. 2, Nov. 1965, published 1967-68, pp. 146-56).
- "Kālidāsa-dṛṣṭyā kāvyasya svarūpam" (Nature of poetry according to Kālidāsa) (*Monthly Organ of the Sanskrit Sahitya Parishat*, Calcutta, vol. 1, nos. 1-4, May-Aug. 1967, pp. 5-11).
- BROWNLEE, J. S. "Morality: Old, New, and Japanese" (*Dalhousie Review*, vol. 47, no. 3, autumn 1967, pp. 295-304).
- Reviews, *Books Abroad*, vol. 42, no. 1, Jan. 1968, pp. 168-9; *Monumenta Nipponica*, vol. 23, nos. 1-2, pp. 212-13, 216-18.
- DOBSON, W. A. C. H. "Abstracts" (*Revue bibliographique de sinologie*, Paris, vol. 6, 1960, pp. 201, 207-8, 209).
- "Authenticating and Dating Archaic Chinese Texts" (*T'oung Pao*, vol. 53, nos. 4-5, 1967, pp. 233-42).
- "China, pasado y presente" (*Estudios Orientales*, vol. 2, no. 3, 1967, pp. 187-212).
- "Daily Seminars Pack a Year's Work into a Month" (*Varsity Graduate*, Christmas 1967, pp. 16-17).
- *The Language of the Book of Songs*. Toronto: University of Toronto Press, 1968. Pp. xxix, 321.
- "Los orígenes de la poesía china" (*Estudios Orientales*, vol. 2, no. 1, 1967, pp. 40-8).

- "A New Look at the Problems of the *Book of Songs*" (*Proceedings of the International Congress of Orientalists*, Ann Arbor, 1967).
- "The Origin and Development of Prosody in Early Chinese Poetry" (*T'oung Pao*, vol. 54, nos. 4-5, 1968, pp. 231-50).
- "The Origins of Poetry in China" (*Varsity Graduate*, spring 1968, pp. 45-7).
- "The Periodization of Classical Chinese (Oracular, Archaic and Han Chinese)"; in *Papers of the CIC Far Eastern Language Institute*, ed. Joseph K. Yamagiva, Ann Arbor, 1968.
- "Towards a Historical Grammar of Classical Chinese - from Late Archaic to Han" (*Proceedings of the 25th International Congress of Orientalists*, New Delhi, 1964).
- LIMAN, A. "Hansen bungaku no kokusaiteki seikaku" (The International Character of antiwar literature) (*Bungakuteki tachiba*, vol. 3, no. 12, Oct. 1967, pp. 76-83).
- "Neznama Hirosima" (Unknown Hiroshima) (*Literarni Noviny*, vol. 16, no. 25, June 1967, p. 8).
- MALVANIA, D. *Ratnākāravatārikā*, Part II, L.D. Institute of Indology, Ahmedabad, India, 1968.
- *Vīṣeṣāvāśyakabhāṣya*, Part II, L.D., Institute of Indology, Ahmedabad, India, 1968.
- "Āgamayuga-nā Vyavahāra ane Nīṣeaya Nayo"; in *Golden Jubilee Volume*, Part I, *Mahāvīra Jaina Vidyālaya*, Bombay, India, 1968, pp. 20-43.
- Review, *Journal of the Oriental Research Institute*, Baroda, vol. 16, no. 4, June 1967, pp. 389-91.
- MALVANIA, D., and MEHTA, M. L. *Jain Sāhitya kā Brhad Itihāsa*, Part II, P.V. Research Institute, Varanasi, India, 1968.
- MALVANIA, D., and MUNI PUNYAVIJAYJI. *Nandī and Anuyogadvāra Sūtra*, Mahāvīra Jaina Vidyālaya, Bombay, India, 1968.
- MALVANIA, D. (with Upadhya, A. N., et al.) *Golden Jubilee Volume*, Mahāvīra Jaina Vidyālaya, Bombay, India, 1968.
- MATILAL, B. K. *The Navya-nyāya Doctrine of Negation - the Semantics and Ontology of Negative Statements in Navya-nyāya philosophy*. Cambridge, Mass.: Harvard University Press (Harvard Oriental Series, vol. 46), 1968. Pp. xi, 208.
- "Gaṅgeśa on the Concept of Universal Property (kevalānvayin)" (*Proceedings of the 3rd International Congress for Logic, Methodology and Philosophy of Science*, 1968, pp. 250-61).
- "Is *samavāya* relation perceptible?" (in Sanskrit: "Samavāya-pratyakṣāpratyakṣatva-vimarśah") (*Monthly Organ of the Sanskrit Sahitya Parishat*, vol. 49, nos. 1-12, 1966-67, Golden Jubilee issue, pp. 118-23).
- MATILAL, B. K. (with Masson, J.) "A Love Story from Eighth-century India" (*Journal of Jadavpur University Comparative Literature*, Calcutta, 1967, pp. 56-67).
- SADDHATHISSA, H. "The Enigma of the Theory of Anatta" (*The Maha Bodhi, International Buddhist Monthly*, Calcutta, vol. 75, nos. 5-6, 1967, pp. 171-4).
- "The Doctrine of Ahimsā in Buddhism"; in *Buddhist Annual*, ed. J. Wickramasinghe, pp. 1-2. Colombo: M. D. Gunasena, 1968.
- "The Message of the Buddha" (*Guiding Light*, Toronto Buddhist Church Journal, vol. 2, no. 6, 1967, pp. 3-8).
- "The Methodical Practice of Mettā, I and II" (*The Maha Bodhi, International Buddhist Monthly*, Calcutta, vol. 75, no. 8, 1967, pp. 278-80; vol. 76, nos. 1-2, 1968, pp. 7-9).
- "The Noble Eightfold Path" (*Vesak Sirīsara, Buddhist Annual*, ed. K. Jinananda and H. P. Jayawardhana, 32nd Issue, Colombo, 1967, pp. 115-18).
- "Philosophy of Life Taught by the Buddha" (*The Friendly Way*, Journal of Wat Buddhapadipa, London, May 1967, pp. 55-7).
- "Philosophy of the Life of a Buddhist" (*World Buddhism, International Monthly*, Colombo, vol. 16, no. 2, 1967, pp. 31-2, 40).
- SMITH, R. M. Reviews, *Archaeology*, vol. 21, p. 159; *East and West*, n.s. vol. 16, nos. 3-4, pp. 382-3; *Journal of the American Oriental Society*, vol. 87, no. 3, pp. 339, 340; *Oriental Art*, n.s. vol. 14, no. 2, p. 121.
- TSURUTA, K. Review, *Journal of Asian Studies*, vol. 27, no. 3, May 1968, pp. 644-5.
- UEDA, M. Review, *Pacific Affairs*, vol. 40, nos. 3-4, fall and winter 1967-68, pp. 386-7).
- VENKATACHARYA, T. Ed. with Introduction and Notes, *Daśarūpaka-Paddhati*, by Kuravi Rāma, pp. 1-46. Madras: V. Sambamurty, 1968.
- Appendix I, "A Difficult Illustrative Verse in the *Daśarūpāvaloka*"; in *ibid.*, pp. 47-59.
- Appendix II, Corrected Text of the *Avaloka* on verse IV-34 of the *Daśarūpaka*, with Bhaṭṭaṅśimha's Commentary, the *Laghuṭīkā*; in *ibid.*, pp. 61-70.
- WARDER, A. K. *Classical Indian Literature: a synopsis*. Toronto: University of Toronto Press, 1968. Pp. 35.
- *Outline of Indian Philosophy*. Toronto: University of Toronto Press, 1967. Pp. 172.
- "The Possible Dates of Pārśva, Vasumitra (II), Caraka and Mātrceta"; in *Proceedings of the Conference on the Date of Kaṇiṣka*, ed. A. L. Basham, 10 pages, Leiden: Brill, 1968.
- WARDER, A. K., and VENKATACHARYA, T. *The Ubhayābhisārikā*. Madras: Sambamurthy, 1967. Pp. 83.

YANG, V. T. Reviews, *Journal of Oriental Studies*, vol. 6, 1967, pp. 212-17, 253-74.

ENGLISH

- BEGOR, A. C. "Variations on a Theme" (3 poems) (*The Fiddlehead*, spring 1967, pp. 48-9).
- BLAKE, C. R. Reviews, *Victorian Studies*, vol. 11, Dec. 1967, pp. 255-8.
- BLISSETT, W. F. "The Venter Tripartite in *The Alchemist*" (*Studies in English Literature*, vol. 8, spring 1968, pp. 323-34).
- CAMERON, A. B. "Donne and Dryden: Their Achievement in the Verse Epistle" (*Discourse: A Review of the Liberal Arts*, vol. 11, no. 2, spring 1968, pp. 252-6).
- "The Extemporaneity of 'Tears, Idle Tears'" (*The CEA Critic*, vol. 30, no. 8, May 1968, p. 16).
- "The Heroine in *The Knight's Tale*" (*Studies in Short Fiction*, vol. 5, no. 2, winter 1968, pp. 119-27).
- "Love Comes Quietly": The Poetry of Robert Creeley" (*Chicago Review*, vol. 19, no. 2, 1967, pp. 92-103).
- "Pope's *An Essay on Man*, IV, 249-252" (*The Explicator*, vol. 26, no. 3, Nov. 1967, Item 23).
- A Report on the Milton Conference at the University of Western Ontario (*Seventeenth-Century News*, vol. 26, no. 1, spring 1968, p. 17).
- Reviews, *Canadian Forum*, vol. 46, no. 559, Aug. 1967, pp. 117-18; *Seventeenth-Century News*, vol. 26, no. 1, spring 1968, p. 12.
- CARROLL, J. J. "Recent Studies of the Eighteenth-Century Novel" (*University of Toronto Quarterly*, vol. 37, Jan. 1968, pp. 208-14).
- CARSCALEN, J. A. "The Goodly Frame of Temperance; The Metaphor of Cosmos in the Faerie Queene, Book II" (*University of Toronto Quarterly*, vol. 37, 1968, pp. 136-55).
- "T. S. Eliot: The Wasteland"; in *Studies of Major Works in English*, ed. John Orrell. Oxford University Press, 1968.
- COBURN, K. (ed.) *Coleridge: A Collection of Critical Essays*. (Twentieth-Century Views). Englewood Cliffs: Prentice-Hall, 1967. Pp. 184.
- DAVIES, R. "The Diary of Samuel Marchbanks" (excerpts); reprinted in *Language Comes Alive II*, p. 55. Toronto: J. M. Dent & Sons, 1967.
- "The Diary of Samuel Marchbanks" (excerpts); reprinted in *Points of View*, pp. 112-15. Toronto: W. J. Gage, 1967.
- "A Good Education" (*Peterborough Examiner*, vol. 120, no. 280, Dec. 1967, p. 4).
- "Massey College Head Remembers Vincent Massey" (*Peterborough Examiner*, vol. 121, no. 4, Jan. 1968, p. 4).
- "Psychedelia" (*Peterborough Examiner*, no. 91, April 1968, p. 4).
- "Read Any Canadian Books?" (*Peterborough Examiner*, vol. 120, no. 296, Dec. 1967, p. 4).
- "Read Any Good Books Lately?" (*Varsity Graduate*, vol. 1, no. 1, Christmas 1967, pp. 18-19).
- Samuel Marchbanks' Almanack*. Toronto: McClelland & Stewart, 1967. Pp. 205.
- "Stratford - 1967: A Difficult Play Well Performed" (*Peterborough Examiner*, vol. 120, no. 182, Aug. 1967, p. 4).
- "A Tough-minded Imaginative Canadian with a Vision of Excellence" (*Varsity Graduate*, vol. 1, no. 2, spring 1968, pp. 33-8).
- "The Voice of the People" (one-act play); reprinted in *Searchlight*, Toronto: The Book Society of Canada Limited, March 1968.
- "What do you See in the Mirror?" (*Varsity Graduate*, vol. 1, no. 2, spring 1968, pp. 60-4).
- Review, *Saturday Night*, vol. 82, no. 11, Nov. 1967, p. 53.
- DE GROOT, H. B. "Albert Verwey, Keats en Matthew Arnold" (*De Nieuwe Taalgids*, vol. 61, no. 1, Jan. 1968, pp. 36-48).
- DOOLEY, D. J. "Arrowsmith"; in *Twentieth Century Interpretations of Arrowsmith*, ed. Robert J. Griffin. Englewood Cliffs: Prentice-Hall, 1968.
- The Art of Sinclair Lewis*. Lincoln: University of Nebraska Press, 1968. Pp. xvi, 286.
- "Catholics have a Right to a Point of View" (*America*, vol. 116, June 3, 1967, pp. 812-13).
- "Flight from Liberation" (*Canadian Literature*, no. 36, spring 1968, pp. 34-9).
- "The Hourglass Pattern in *The Ambassadors*" (*New England Quarterly*, vol. 41, no. 2, June 1968, pp. 273-81).
- "Introduction to Stephen Leacock"; in *Short Circuits*, New Canadian Library. Toronto: McClelland and Stewart, 1967.
- Reviews, *Canadian Forum*, vol. 48, April 1968, pp. 18-19; *Critique*, vol. 10, no. 1, 1968, pp. 95-9.
- DUFFY, D. "Kipling and the Dialect of the Tribe" (*Dalhousie Review*, vol. 47, no. 3, autumn 1967, pp. 344-54).
- "The Too-Well Tempered Critic" (*Tamarack Review*, no. 46, winter 1968, pp. 115-20).

- Reviews, *Canadian Forum*, vol. 47, no. 558, July 1967, p. 91; no. 562, Nov. 1967, pp. 178–9; no. 564, Jan. 1968, p. 236; vol. 48, no. 568, May 1968, pp. 44, 48; no. 569, June 1968, p. 67.
- ENDICOTT, A. "Pip, Philip and Astrophil: Dickens's Debt to Sidney" (*The Dickensian*, vol. 63, part 3, Sept. 1967, pp. 158–62).
- FOX, D. (ed.) *The Testament of Cresseid*, by Robert Henryson. London: Nelson, 1968. Pp. 165.
- GODFREY, W. D. *Death Goes Better with Coca-Cola* (Collected Stories). Toronto: Anansi Press, 1967. Pp. 115.
- GODFREY, W. D., and McWHINNEY, W. (eds.) *Man Deserves Man: CUSO in Developing Countries*. Toronto: Ryerson Press, 1968.
- GRAZIANI, R. I. C. "John Donne's 'The Extasie' and Ecstasy" (*Review of English Studies*, n.s. vol. 19, no. 74, May 1968, pp. 121–36).
- GROSSKURTH, P. "The Smile on the Face of the Tiger" (*Canadian Literature*, no. 34, autumn 1967, pp. 24–31).
- Reviews, *Canadian Forum*, vol. 47, no. 566, pp. 287, 288; *Canadian Historical Review*, Sept. 1967, pp. 278–9; *The Globe and Mail*, July 22, 1967, Aug. 12, 1967; Sept. 16, 1967; Jan. 13, 1968; Feb. 17, 1968; *Saturday Night*, Nov. 1967, pp. 55–8; weekly column for the *Toronto Daily Star* from Feb. 10, 1968.
- HALEWOOD, W. H. "Mannerism" (*History and Theory*, vol. 7, no. 1, 1968, pp. 90–102).
- Review, *Journal of Aesthetics and Art Criticism*, vol. 26, no. 2, winter 1967, pp. 267–8.
- HAYNE, B. S. "Yankee in the Patriarchy: T. B. Thorpe's Reply to *Uncle Tom's Cabin*" (*American Quarterly*, vol. 20, no. 2, part 1, summer 1968, pp. 180–95).
- HEYWORTH, P. L. "The Earliest Black-Letter Editions of *Jack Upland*" (*Huntington Library Quarterly*, vol. 30, 1967, pp. 307–14).
- (ed.) *Jack Upland, Friar Daw's Reply and Upland's Rejoinder*. Oxford: Oxford English Monographs, 1968. Pp. 188.
- "Jack Upland's Rejoinder, a Lollard Interpolator, and *Piers Plowman* B. x. 249f" (*Medium Aevum*, vol. 36, 1967, pp. 242–8).
- HOENIGER, F. D. (ed.) *The Life of King Henry VIII*. Baltimore: Penguin Books, 1967. Pp. 153.
- HOWARD, W. J. "A Tale of Two Cultures" (*The Basilian Teacher*, vol. 12, Jan. 1968, pp. 23–30).
- "Truth Preserves her Shape: an Unexplored Influence on Defoe's Prose Style" (*Philological Quarterly*, vol. 47, no. 2, pp. 193–205).
- KEITH, W. J. "D. H. Lawrence's *The White Peacock*: An Essay in Criticism" (*University of Toronto Quarterly*, vol. 37, April 1968, pp. 230–47).
- "An Interview with Carlyle" (*Notes and Queries*, n.s. vol. 14, Oct. 1967, pp. 371–2).
- "Stratford at the Crossroads" (*Canadian Forum*, vol. 47, Sept. 1967, pp. 133–4).
- Reviews, *Canadian Forum*, vol. 47, July 1967, pp. 86–8; vol. 48, May 1968, p. 45; June 1968, p. 69.
- LEECH, C. General ed. *The Alchemist*, by Ben Jonson, ed. F. H. Mares (Revels Plays). London: Methuen; Cambridge, Mass.: Harvard University Press, 1967. Pp. lxxx, 208.
- "The Dark Side of *Macbeth*" (*The Literary Half-Yearly*, Mysore, vol. 8, nos. 1 and 2, pp. 27–34).
- General ed. *Dido Queen of Carthage* and *The Massacre at Paris*, by Christopher Marlowe, ed. H. J. Oliver (Revels Plays). London: Methuen; Cambridge, Mass.: Harvard University Press, 1968. Pp. lxxvi, 187.
- "Distancing in *The Duchess of Malfi*"; reprinted in *Twentieth Century Interpretations of The Duchess of Malfi*, ed. Norman Rabkin, pp. 85–9. Englewood Cliffs: Prentice-Hall, 1968.
- "The Dramatists' Independence" (*Research Opportunities in Renaissance Drama*, vol. 10, 1967, pp. 17–23).
- "The Shaping of Time: *Nostromo* and *Under the Volcano*"; in *Imagined Worlds: Essays on some English Novels and Novelists in Honour of John Butt*, ed. Maynard Mack and Ian Gregor, pp. 323–41. London: Methuen, 1968.
- "*Twelfth Night*, or What Delights You"; reprinted in *Twentieth Century Interpretations of Twelfth Night*, ed. Walter N. King, pp. 70–4. Englewood Cliffs: Prentice-Hall, 1968.
- Reviews, *Modern Language Quarterly*, vol. 28, no. 3, 1967, pp. 383–4; *Modern Language Review*, vol. 62, no. 4, 1967, pp. 702–3; vol. 63, no. 2, 1968, pp. 460–1; *Review of English Studies*, n.s. vol. 18, no. 72, 1967, pp. 458–60; *University of Toronto Quarterly*, vol. 37, no. 1, 1967, pp. 105–9.
- LEYERLE, J. F. "The Interlace Structure of *Beowulf*" (*University of Toronto Quarterly*, vol. 37, 1967, pp. 1–17, 9 plates. (Also printed separately as a memorial lecture for the late Professor Norman Garmonsway.)
- LOCHHEAD, D. G. "Evening Grosbeaks" (poem) (*Queen's Quarterly*, vol. 75, no. 1, spring 1968, p. 33).
- (ed. and introduction) *From Montreal to the Maritime Provinces and Back*, by A. G. Gilbert. Facsimile publication. Toronto: Bibliographical Society of Canada, 1967.
- "Green Thrust" (poem) (*Dalhousie Review*, vol. 48, no. 1, spring 1968, p. 12).

- "Old Harbours" (poem) (*Queen's Quarterly*, vol. 74, no. 2, summer 1967, p. 234).
- "A Private Searching" (poem) (*Canadian Forum*, vol. 47, no. 564, Jan. 1968, p. 12).
- "Swifts" (poem) (*Queen's Quarterly*, vol. 74, no. 3, autumn 1967, p. 428).
- "To Grieve" (poem) (*ibid.*, p. 428).
- MACCALLUM, H. R. "Letters in Canada: Poetry" (*University of Toronto Quarterly*, vol. 36, 1967, pp. 354-79).
- MACGILLIVRAY, J. R. "Canadian Literature (English)"; in *Encyclopaedia Britannica*, revised, 1967.
- "New Editors and Critics of the English Romantics" (*University of Toronto Quarterly*, vol. 37, no. 3, April 1968, pp. 309-20).
- "The Letters of Charles Armitage Brown" (*Modern Philology*, vol. 65, no. 2, Nov. 1967, pp. 168-70).
- MARKER, F. J. "H. C. Andersen as a Royal Theatre Actor" (*Anderseniana*, ser. 2, vol. 6, 1968, pp. 234-40).
- MARY ARTHUR, SISTER. "Conflict and Reconciliation: The Themes of Mercy and Justice in Medieval Literature" (*The Basilian Teacher*, vol. 11, no. 7, Nov. 1967, pp. 375-87).
- MEAGHER, J. C. "Authority Confused" (*Jubilee*, vol. 15, no. 9, March 1968, p. 33).
- "The Church 'Learning'" (*Jubilee*, vol. 15, no. 4, Oct. 1967, p. 27).
- *The Death of Robert Earl of Huntington*. Oxford: Oxford University Press (for the Malone Society), 1967 (for 1965). Pp. xvi, 103.
- "The Distance to Rome" (*Jubilee*, vol. 15, no. 6, Dec. 1967, p. 42).
- "The Educational Hang-up" (*Jubilee*, vol. 15, no. 10, April 1968, p. 19).
- "The First Progress of Henry VII"; in *Renaissance Drama*, ed. S. Schoenbaum, vol. 1 n.s., pp. 45-73. Evanston: Northwestern University Press, 1968.
- *The Future of Belief on the University Campus*. Chicago: Serra International, 1967. Pp. 11.
- "Keeping it Informal" (*Jubilee*, vol. 15, no. 5, Nov. 1967, pp. 30, 45).
- "A New Lent" (*Jubilee*, vol. 15, no. 8, Feb. 1968, p. 12).
- "Paradoxes of Belief" (*Jubilee*, vol. 15, no. 7, Jan. 1968, pp. 42-3).
- "Reading the Present" (*Jubilee*, vol. 16, no. 2, June 1968, p. 31).
- Review, *Renaissance Quarterly*, vol. 21, no. 2, summer 1968, pp. 236-9.
- MILLGATE, J. "Quentin Compson as Poor Player" (*Revue des Langues Vivantes*, vol. 34, 1968, pp. 40-9).
- MILLGATE, M. "Faulkner in Toronto: A Further Note" (*University of Toronto Quarterly*, vol. 37, Jan. 1968, pp. 197-202).
- "William Faulkner: The Problem of Point of View"; in *Patterns of Commitment in American Literature*, ed. Marston LaFrance, pp. 181-92. Toronto: University of Toronto Press, 1967.
- MILLGATE, M. (with Meriwether, J. B.) (eds.) *Lion in the Garden: Interviews with William Faulkner, 1926-1962*. New York: Random House, 1968. Pp. xvi, 298.
- MORGAN, P. F. "Principles and Perspective in Jeffrey's Criticism" (*Studies in Scottish Literature*, vol. 4, nos. 3 and 4, Jan.-April 1967, pp. 179-93).
- O'DRISCOLL, R. "The Message Makes the Medium: Meaning and Pattern in *Waiting for Godot*" (*Tabloid*, vol. 1, no. 1, March 1968, pp. 4-5).
- "Yeats and Lady Gregory" (*University of Toronto Quarterly*, vol. 36, July 1967, pp. 398-404).
- PARKER, R. B. "Theatre in Education" (*The Stage in Canada*, vol. 4, 1968, pp. 7-9).
- PRITCHARD, A. "Six Letters by Cowley" (*Review of English Studies*, n.s., vol. 18, no. 71, Aug. 1967, pp. 253-63).
- ROBSON, J. M. "A Day in the Life of Professor Hmnnn"; in *The University Game*, ed. D. B. Lee and H. Adelman, pp. 5-17. Toronto: House of Anansi, 1968.
- (ed.) *Editing Nineteenth-Century Texts*. University of Toronto Press, 1967. Pp. 145.
- (textual ed.) *Essays on Economics and Society*, by J. S. Mill. Toronto: University of Toronto Press, 1967. 2 vols. Pp. 984.
- *The Improvement of Mankind: The Social Thought of John Stuart Mill*. Toronto: University of Toronto Press, 1968. Pp. xii, 292.
- "Light Prose"; in "Letters in Canada," *University of Toronto Quarterly*, vol. 36, July 1967, pp. 443-53.
- "Mill and Arnold: Liberty and Culture"; in *Of Several Branches: Studies from the Humanities Association Bulletin*, ed. G. S. McCaughey, pp. 96-122. Toronto: University of Toronto Press, 1968.
- (ed.) *Mill News Letter*, Vol. III. Victoria University and University of Toronto Press, 1967.
- "Principles and Methods in the Collected Edition of John Stuart Mill"; in *Editing Nineteenth-Century Texts*, pp. 96-122. Toronto: University of Toronto Press, 1967.
- "Student Evaluation 1967" (*Acta Victoriana*, Nov. 1967, pp. 34-9).
- Review, *Mill News Letter*, vol. 2, no. 1, fall 1966, pp. 15-16.
- ROBSON, J. M. (with Hascall, D.) "Bibliography of Writings on J. S. Mill" (*Mill News Letter*, vol. 3, fall 1967, pp. 12-19).
- ROPER, G. "The Canadian Bibliographer and Library Record and its Editor"; in *Papers of the*

- Bibliographical Society of Canada*, vol. 6, pp. 27–31. Toronto: The Bibliographical Society of Canada, 1968.
- “The Four Part Structure”; in *The Scarlet Letter. A Collection of Critical Essays*, ed. John Gerber, pp. 49–53. Englewood Cliffs: Prentice-Hall, 1968.
- “Mark Twain and his Canadian Publishers: a Second Look”; in *Papers of the Bibliographical Society of Canada*, vol. 5, pp. 30–89. Toronto: The Bibliographical Society of Canada, 1967.
- (associate ed.) *Omoo. The Writings of Herman Melville*, vol. 2. The Northwestern-Newberry edition. Evanston and Chicago: Northwestern University Press and Newberry Library, 1968.
- Introduction to *Samuel Marchbanks' Almanack*, by Robertson Davies, pp. ix–xiii. New Canadian Library, no. 61. Toronto: McClelland & Stewart, 1968.
- Review, *University of Toronto Quarterly*, vol. 36, no. 4, July 1967, pp. 411–13.
- ROSENBAUM, S. P. Reviews, *University of Toronto Quarterly*, vol. 37, Oct. 1967, pp. 109–12; *Globe and Mail*, Oct. 10, 1967; Jan. 6, March 9, April 6, April 20, May 11, 1968.
- RUDZIK, O. H. T. *Antony and Cleopatra*: Introduction, Study Questions, Summaries. New York: Airmont, 1966. Pp. vii–xiii, xiii–xvi, 1, 30, 73, 116, 151.
- *Othello*: Introduction, Study Questions, Summaries. New York: Airmont, 1966. Pp. viii–xiv, xiv–xvii, 2, 36, 70, 110, 146.
- RUSSELL, P. Shakespeare Bibliography (*Shakespeare Quarterly*, vol. 19, no. 3, summer 1968).
- SCHIEDER, R. M. K. “Martin Allerdale Grainger” (*Yale Forest History*, vol. 11, no. 3, Oct. 1967, pp. 6–13).
- SCHOECK, R. J. “Advisory Councils” (*Canadian University*, vol. 11, 1967, p. 78).
- “Heywood’s Case of Love: A Legal Reading of John Heywood’s *A Play of Love*” (*Studia Neophilologica: A Journal of Germanic and Romance Philology*, vol. 39, no. 2, 1967, pp. 284–301).
- “Lord Acton as a Literary Critic” (*Rivista di Letterature Moderne e Comparate*, vol. 20, 1967, pp. 53–61).
- “Mathematics and the Languages of Literature Criticism” (*Journal of Aesthetics & Art Criticism*, vol. 26, 1968, pp. 367–76).
- “More’s Cell in the Tower” (*Moreana*, vol. 18, 1968, p. 74).
- “On the Letters of Thomas More” (*Moreana*, vol. 15–16, 1967, pp. 193–203).
- “Recent Scholarship in the History of Law” (*Renaissance Quarterly*, vol. 20, 1968, pp. 279–91).
- “The Scholar in the World: a Humanistic View”; in *The Christian Intellectual and the ‘Secular’ World*, pp. 49–56. Washington, D.C.: Catholic Committee for Intellectual and Cultural Affairs, May 1968.
- SCHOECK, R. J. (with McConica, K., Davis, Z., et al.) “A Finding List of Renaissance Legal Literature” (*Renaissance and Reformation Bulletin*, vol. 4, nos. 1–3, 1967–1968, pp. 2–27, 34–85, 97–126).
- SHOOK, L. K. “Abelard”; in *Collier’s Encyclopedia*, vol. I, pp. 17–19, 1967 ed.
- “The House of Fame”; in *Companion to Chaucer Studies*, ed. Beryl Rowland, pp. 341–54. Toronto: Oxford University Press, 1968.
- (ed.) *Theology of Renewal*, 2 vols. New York: Herder & Herder; Montreal: Palm, 1968. Pp. 380; 480.
- “University Centers and Institutes of Medieval Studies” (*Journal of Higher Education*, vol. 38, 1967, pp. 484–92).
- SHOOK, L. K., and BERTRAND, GUY-M. *La Théologie du renouveau*, 2 vols. Montreal: Fides, 1968. Pp. xx, 376, 375.
- SHOOK, L. K. (with Taylor, J., and White, L., Jr.) “Methods of Organizing Medieval Studies Programs” (*Chronica*, vol. 2, 1968, pp. 3–17).
- WILSON, M. “Pratt’s Comedy” (*Journal of Canadian Studies*, vol. 3, no. 2, May 1968, pp. 21–30).

FINE ART

- ALFÖLDI, E. “Excavations and Restorations in Anemurium” (*Türk Arkeoloji Dergisi*, 1968, vol. 15, pp. 5–12).
- ALFÖLDI, E. (with Huber, G., and Onurkan, S.) *Survey of Coastal Cities in Western Cilicia*. Ankara, 1967.
- ALFÖLDI, E. (with Erim, K., and Inan, J.) “Roman and Early Byzantine Portrait Sculpture in Asia Minor, Supplement I” (*Bulleten*, XXXII/125, 1968, pp. 1–24, pls. I–XVI).
- BROOKS, H. A. “Frank Lloyd Wright” (*Encyclopedia of World Art*, vol. 14, 1967, pp. 858–70).
- Review, *Burlington Magazine*, vol. 109, Dec. 1967, p. 720.
- GRAHAM, J. W. “A Banquet Hall at Mycenaean Pylos” (*American Journal of Archaeology*, vol. 71, no. 4, 1967, pp. 353–60).
- Reviews, *Archaeology*, vol. 20, no. 3, June 1967, pp. 234–5; *American Journal of Archaeology*, vol. 72, no. 2, April 1968, pp. 179–80.
- JOHNSON, L. F. “Recent Delacroix Literature” (*Burlington Magazine*, Feb. 1968, pp. 102–5).

- JOHNSON, W. MCA. "A 'Biface' Medal of Henry II?" (*Journal of the Warburg and Courtauld Institutes*, vol. 30, 1967, pp. 401-3).
- "Primitaccio Revisited: Aspects of Draftsmanship in the School of Fontainebleau" (*Art Quarterly*, vol. 29, nos. 3-4, 1966, published Sept. 1967, pp. 245-68).
- Reviews, *Art Quarterly*, vol. 30, no. 2, 1967, pp. 177-9; *Romanic Review*, vol. 59, no. 1, 1968, pp. 52-5).
- JOHNSON, W. MCA. (with Graham, V. E.) "Ronsard et la Renommée du Louvre" (*Bibliothèque d'Humanisme et Renaissance*, vol. 30, 1968, pp. 7-17).
- VASTOKAS, J. M. "The Relation of Form to Iconography in Eskimo Masks" (*The Beaver*, Special Issue on Eskimo Art, autumn 1967, pp. 26-31).
- New Guinea Sculptures*, Exhibition Catalogue, Ottawa: National Gallery of Canada, 1968. (Including introduction, descriptions, and compiled bibliography.)
- Reviews, *Man*, *Journal of the Royal Anthropological Institute*, vol. 2, no. 4, Dec. 1967, pp. 650-1; *Journal of Canadian Studies*, vol. 3, no. 2, May 1968, pp. 56-62 (Review Article).
- VITZTHUM, W., et al. Catalogue for the *Exhibition of Neapolitan Drawings of the 17th Century*, Louvre, Paris, organized by Dr. Vitzthum.

FRENCH

- CLOUTIER-WOJCIEGHOWSKA, C. "A mesure" (*Maintenant*, mars 1968, p. 89).
- "Le Cœur sauvage" (*Livres et auteurs canadiens*, 1967, pp. 60-1).
- "Fransk-Canadisk Malerkunst" (*Billedkunst*, vol. 2, no. 6, Dec. 1967, pp. 101-5).
- "L'Écriture" (*Poétique*, 1967, pp. 13-14).
- "Le Nez qui vogue" (*Livres et auteurs canadiens*, 1967, pp. 61-2).
- "La Nouvelle Poésie" (*APFUC*, summer 1967, pp. 15-17).
- "La Nouvelle Poésie" (*Liberté*, vol. 9, no. 4, juillet 1967, pp. 118-27).
- "Le Silence" (*Other Voices*, vol. 3, no. 3, Nov. 1967, pp. 25-9).
- "Les Villes" (*West Coast Review*, vol. 3, no. 1, spring 1968, p. 22).
- CURTIS, A. R. "The Theatre of an Actor-Playright: Raymond Poisson" (*Australian Journal of French Studies*, vol. 4, no. 2, 1967, pp. 225-44).
- DONOVAN, R. B. "Salutati's Opinion of Non-Italian Latin Writers of the Middle Ages" (*Studies in the Renaissance*, vol. 14, 1967, pp. 182-201).
- FALCONER, A. G. "Alfred de Musset, poète de l'actuel"; in *Le Réel dans la littérature et dans la langue* (Actes du X^e Congrès de la Fédération internationale des langues et littératures modernes), p. 163. Paris: Klincksieck, 1967.
- FITCH, B. T. (ed.) "Albert Camus no. 1" (*La Revue des Lettres Modernes*, 1968, p. 236).
- "Aspects de l'emploi du discours indirect libre dans *L'Étranger*" (*ibid.*, pp. 81-91).
- "L'Évocation du réel dans *La Nausée* de Sartre"; in *Le Réel dans la littérature et dans la langue* (Actes du X^e Congrès de la F.I.L.L.M.). Paris: Klincksieck, 1967.
- "Présentation de la *Série* Albert Camus" (*La Revue des Lettres Modernes*, 1968, pp. 3-10).
- "Quelques critiques sur *L'Étranger*" (*ibid.*, pp. 219-36).
- FLEMING, J. A., et al. *French VII, Bibliography 19*. Critical and Biographical References for the Study of Contemporary French Literature, vol. 3, no. 5. New York: French Institute, 1967. Pp. vi, 2779-3123.
- GRAHAM, V. E. Reviews, *French Review*, vol. 41, no. 6, May 1968, pp. 892-3; *Livres et auteurs canadiens*, 1967, pp. 108-9; *Renaissance Quarterly*, vol. 21, no. 1, spring 1968, pp. 64-6; *Romanic Review*, vol. 59, no. 2, April 1968, pp. 130-2.
- GRAHAM, V. E., and JOHNSON, W. M. "Ronsard et la Renommée du Louvre" (*Bibliothèque d'Humanisme et Renaissance*, vol. 30, no. 1, 1967, pp. 7-17).
- GRISÉ, C. M. (ed.) *Les Vers héroïques* by François Tristan L'Hermite. Textes Littéraires Français no. 144. Geneva: Librairie Droz, 1967. Pp. 339.
- "Tristan L'Hermite est-il l'auteur du *Ballet du Triomphe de la Beauté*?" (*Revue d'histoire littéraire de la France*, vol. 67, oct.-déc. 1967, pp. 777-82).
- "La Vraie source de 'L'Ambition Tancée' de Tristan L'Hermite" (*Revue de Littérature Comparée*, vol. 41, oct.-déc. 1967, pp. 585-8).
- HARDEN, A. R. (ed.) *Vie de Seint Auban* (Anglo-Norman Text Society). Oxford: Basil Blackwell, 1968. Pp. 85.
- HAYNE, D. M. (ed.) "Letters in Canada: 1966" (*University of Toronto Quarterly*, vol. 36, no. 4, July 1967, pp. 353-562).
- (ed.) *Papers of the Bibliographical Society of Canada/Cahiers de la Société bibliographique du Canada*, vol. 6. Toronto: Bibliographical Society of Canada, 1967. Pp. 87.
- Review, *Canadian Modern Language Review*, vol. 24, no. 3, March 1968, pp. 94-5.
- HOLMES, C. E. *L'Eloquence judiciaire de 1620 à 1660, reflet des problèmes sociaux, religieux et politiques de l'époque*. Paris: A. G. Nizet, 1967. Pp. 317.
- JEANES, R. W. "Problems of French Grammar and Usage: 2: *Passer* and Verbs of Motion" (*Canadian Modern Language Review*, vol. 24, no. 3, pp. 46-8).
- LÉON, M. "La Classe de conversation" (*Le Français dans le monde*, oct.-nov. 1966, pp. 40-1).

- *French Pronunciation Drills*. New York: Harcourt, Brace, 1968.
- LÉON, M. (with Haac, O., and Bieler, A.) *Perspectives de France*. Englewood Cliffs: Prentice-Hall, 1968. Pp. 581.
- LÉON, M. (with Rondeau, G., and Vinay, P.) *Le Français international*. Montréal: Centre éducatif et culturel, 1967. Pp. 239.
- LÉON, P. R. "H et R en patois normand et en français-canadien" (*Études de linguistique franco-canadienne*, 1967, pp. 125-41).
- "La joncture externe en français: nature et fonction" (*Phonologie der Gegenwart*, 1967, pp. 298-306).
- "Les niveaux de langues en phonostylistique"; in *La grammaire du français parlé*, special issue of *Le Français dans le Monde*, no. 57, juin 1968.
- "Quelques problèmes de phonétique générale et de phonétique française" (*La Linguistique*, vol. 3, no. 2, 1967, pp. 131-8).
- Review, *Canadian Modern Language Review*, vol. 24, Oct. 1967, pp. 103-5.
- LÉON, P. R., and LÉON, M. (with Rondeau, G., Rondeau, F., and Vinay, J. P.) *Le Français international*. Montréal: Centre éducatif et culturel, 1967. Part I, pp. 239; Part II, pp. 143.
- MCCLELLAND, J. A. (ed.) *Pontus de Tyard: Les Erreurs amoureuses. Édition critique avec une introduction et des notes*. Geneva: Droz, 1967.
- Review, *Modern Language Journal*, vol. 51, no. 5, May 1967, pp. 301-2.
- O'GORMAN, G. D. (with Otis Fellows) "A Note concerning Diderot's Mathematics" (*Diderot Studies*, vol. 10, 1968, pp. 47-50).
- OLIVER, W. A. (ed.) Benjamin Constant, *Adolphe*, ed. with introduction and notes. London: Macmillan, 1968. Pp. lii, 153.
- PARSONS, C. R. *En Quête d'aventure*. Toronto: McGraw-Hill, 1968. Pp. 163.
- "The Word Painter" (*Adam International Review*, vol. 32, nos. 319-20-21, pp. 69-75).
- RIÈSE, L. Reviews, *Canadian Forum*, March 1967, pp. 284-5; *Canadian Modern Language Review*, vol. 23, no. 4, June 1967, pp. 58-9; vol. 24, no. 2, Jan. 1968, pp. 132-3.
- ROBIDOUX, R. "L'Autonomie d'une petite littérature" (*Mosaic*, no. 3: "The Literature of Small Countries", April 1968, pp. 97-109).
- "Claudel, poète de la connaissance: *La Muraille intérieure de Tokyo*" (*Cahier canadien Claudel*, no. 5: "Formes et Figures," 1967, pp. 15-51).
- "Introduction à l'étude de *Rue Deschambault* de Gabrielle Roy" (*Canadian Modern Language Review*, vol. 24, no. 1, Oct. 1967, pp. 60-1).
- "Paul Claudel et Roger Martin du Gard" (*Cahier canadien Claudel*, no. 5: "Formes et Figures," 1967, pp. 173-82).
- Review, *Livres et auteurs canadiens*, 1967, p. 48.
- SANOUILLET, M., and ROBERT, P. R. (eds.) *Le Grand Meaulnes*. London, Toronto, Sydney, Wellington: Methuen Educational Ltd., 1968. Pp. 254.
- SCHOOT, H. G. *Le Système verbal du français contemporain*. The Hague: Mouton 1968. Pp. 75.
- Reviews, *Canadian Modern Language Review*, vol. 24, no. 2, Jan. 1968, pp. 127-30 (2).
- SHEK, B.-Z. (trans.) *Knife on the Table*, by Jacques Godbout. Toronto: McClelland and Stewart, 1968. Pp. 128.
- SMITH, D. W. Review, *University of Toronto Quarterly*, vol. 35, no. 4, July 1966, pp. 429-31.
- TOLTON, C. D. E., et al. *French VI, Bibliography 6: Critical and Biographical References for the Study of Nineteenth Century French Literature*, vol. 2, no. 1. New York: French Institute, 1966. Pp. vi, 1-193.
- *French VII, Bibliography 18: Critical and Biographical References for the Study of Contemporary French Literature*, vol. 4, no. 3. New York: French Institute, 1966. Pp. vi, 2407-2777.
- WOOD, J. S. "Guy de Maupassant" (*Canadian Modern Language Review*, vol. 23, no. 1, Oct. 1967, pp. 52-8).
- "Une pièce inédite de Paul de Musset" (*Revue d'Histoire du Théâtre*, no. 1, 1967, pp. 76-81).
- Review, *Canadian Modern Language Review*, vol. 23, no. 4, June 1967, pp. 51-2.

GEOGRAPHY

- BAKER, A. M. "Geographic Sampling"; in *Spatial Analysis: A Reader in Statistical Geography*, ed. Brian J. L. Berry and Duane F. Marble, pp. 91-100. Englewood Cliffs, N.J.: Prentice-Hall, 1968.
- BRITTON, J. N. H. *Regional Analysis and Economic Geography: A Case Study of Manufacturing in the Bristol Region*. London: G. Bell & Sons, 1967. Pp. 212.
- BURTON, I. *Report of the Inter-Regional Seminar on Integration of Community Water Supplies into Planning of Economic Development*. Geneva, September 19-28, 1967. Geneva: World Health Organization, 1967.
- Review, *Canadian Geographer*, vol. 12, no. 1, 1968, pp. 57-8; *Economic Geography*, vol. 44, no. 2, 1968, pp. 184-6.

- BURTON, I. (with Derrick Sewell) "Recent Innovations in Resource Development Policy" (*Canadian Geographer*, vol. 11, no. 4, 1967, pp. 327-40).
- CURRY, L. "Central Places in the Random Spatial Economy" (*Journal of Regional Science*, vol. 7, no. 2 (Supp.), 1967, pp. 217-38).
- "A Wave Statistics Model for Climatic Time Series" (Proceedings of Colloquium on Time Series Analysis, Kansas Geological Survey, *Computer Contribution*, vol. 18, 1967, pp. 46-50).
- "Quantitative Geography, 1967" (*The Canadian Geographer/Le Géographe Canadien*, vol. 11, no. 4, 1967, pp. 265-79).
- DEAN, W. G. "Canadian Geography, 1967" (*The Canadian Geographer/Le Géographe Canadien*, vol. 11, no. 4, 1967, pp. 195-6).
- Review, *The Canadian Geographer/Le Géographe Canadien*, vol. 12, no. 1, pp. 54-5.
- FIELD, N. C. "Environmental Quality and Land Productivity: A Comparison of the Agricultural Land Base of the U.S.S.R. and North America" (*The Canadian Geographer/Le Géographe Canadien*, vol. 12, no. 1, 1968, pp. 1-14).
- GALLOWAY, J. H. "The Sugar Industry of Pernambuco during the Nineteenth Century" (*Annals of The Association of American Geographers*, vol. 58, no. 2, June 1968, pp. 285-303).
- HARRIS, R. C. "Historical Geography in Canada" (*The Canadian Geographer/Le Géographe Canadien*, vol. 11, no. 4, 1967, pp. 235-50).
- "The St. Lawrence: River and Sea" (*Cahiers de Géographie de Québec*, vol. 11, no. 23, 1967, pp. 171-9).
- Review, *Canadian Forum*, Feb. 1968, pp. 250-1.
- KERR, D. P. "Metropolitan Dominance in Canada"; in *Canada: A Geographical Interpretation*, ed. J. Warkentin, pp. 531-55. Toronto: Methuen, 1968.
- LEMON, J. T. "Urbanization and the Development of Eighteenth-Century Southeastern Pennsylvania and Adjacent Delaware" (*William and Mary Quarterly*, 3rd. Ser., vol. 24, no. 4, Oct. 1967, pp. 501-42).
- SIMMONS, J. W. "Voting Behaviour and Socio-Economic Characteristics: The Middlesex East Federal Election, 1965" (*Canadian Journal of Economics and Political Science*, vol. 33, Aug. 1967, pp. 389-400).
- "Urban Geography in Canada" (*The Canadian Geographer/Le Géographe Canadien*, vol. 11, no. 4, 1967, pp. 341-56).
- SPELT, J. "Southern Ontario"; in *Canada: A Geographical Interpretation*, ed. J. Warkentin, pp. 334-95. Toronto: Methuen, 1968.
- Review, *Economic Geography*, vol. 43, no. 4, 1967, pp. 373-4.
- TUAN, Yi-Fu *Hydrologic Cycle and Wisdom of God*. Toronto: University of Toronto Press, 1968. Pp. 160.
- Reviews, *The Canadian Geographer/Le Géographe Canadien*, vol. 11, no. 3, 1967, pp. 190-1; *Geographical Review*, vol. 58, no. 2, 1968, pp. 308-9; *Landscape*, vol. 17, no. 1, autumn 1967, p. 34; no. 2, winter 1967-68, p. 38.
- WATTS, F. B. "Climate, Vegetation, Soil"; in *Canada: A Geographical Interpretation*, ed. J. Warkentin, pp. 78-111. Toronto: Methuen, 1968.

GEOLOGY

- ANDERSON, G. M. "Specific Volumes and Fugacities of Water"; in *Geochemistry of Hydrothermal Ore Deposits*, ed. H. L. Barnes, pp. 632-5. New York: Holt Rinehart and Winston, 1967.
- ANDERSON, G. M. (with Hamilton, D. L.) "Effects of Water and Oxygen Pressures on the Crystallization of Basaltic Magmas"; in *Basalts, the Poldervaart Treatise on Rocks of Basaltic Composition*, ed. H. H. Hess and A. Poldervaart, pp. 445-82. Interscience, 1967.
- BEALES, F. W. (with Jackson, S. A.) "An Aspect of Sedimentary Basin Evolution: the Concentration of Mississippi Valley-type Ores during Late Stages of Diagenesis" (*Bulletin of Canadian Petroleum Geology*, vol. 15, no. 4, Dec. 1967, pp. 383-433).
- CURRIE, J. B. "Evolution of Stress in Rocks of a Sedimentary Basis" (*Proceedings of the 7th World Petroleum Congress*, vol. 3, 1967, pp. 41-51).
- FAWCETT, J. J. (with Rucklidge, J. C., and Gasparrini, E.) "Chemistry of Basaltic Rocks from the Isle of Mull, Scotland" (*Program, Annual Meeting of the Geological Society of America*, New Orleans, 1967, p. 63) (abstract).
- GITTINS, J. (with Ingamells, C. O.) "The Stoichiometry of Scapolite" (*Canadian Mineralogist*, vol. 9, part 2, 1967, pp. 214-36).
- GROSS, W. H. "Evidence for a Modified Placer Origin for Auriferous Conglomerates, Canavieiros Mine, Jacobina, Brazil" (*Economic Geology*, vol. 63, no. 3, May 1968, pp. 271-6).
- GROSS, W. H. (with Fitzgerald, A. C., Graham, R. J., and Rucklidge, J. C.) "The Application and Significance of Gold-Silver Ratios at Val d'Or, Quebec" (*Economic Geology*, vol. 62, no. 4, June-July 1967, pp. 502-16).
- NALDRETT, A. J. "Melting Relations in a Portion of the Fe-S-O System and the Crystallization of Sulfide-Oxide Ore Magmas" (*Program, Annual Meeting of the Geological Society of America*, New Orleans, Nov. 1967, pp. 160-1).

- "Melting Relations over a Portion of the Fe-S-O System and their Bearing on the Temperature of Crystallization of Natural Sulfide-Oxide Liquids" (*Annual Report, Director of the Geophysical Laboratory, Carnegie Institution of Washington, Year Book '66, Dec. 1967*, pp. 419-27).
- NALDRETT, A. J. (with Brown, G. M.) "Reaction between Pyrrholite and Enstatite-Ferrosilito Solid Solutions" (*Annual Report, Director of the Geophysical Laboratory, Carnegie Institution of Washington, Year Book '66, Dec. 1967*, pp. 427-9).
- NALDRETT, A. J. (with Craig, J. R.) "Minimum Melting of Nickeliferous Pyrrhotite Ores" (*Annual Report, Director of the Geophysical Laboratory, Carnegie Institution of Washington, Year Book '66, Dec. 1967*, pp. 417-19).
- "Partial Pressure of Sulfur in the Vapor Co-existing with the $Fe_{1-x}S-Ni_{1-x}$ Solid Solution at 600° and 400° C" (*ibid.*, pp. 436-40).
- NALDRETT, A. J. (with Craig, J. R., and Kullerud, G.) "The Central Portion of the Fe-Ni-S System and its Bearing on Pentlandite Exsolution in Iron-Nickel Sulfide Ores" (*Economic Geology*, vol. 62, no. 6, Sept. 1967, pp. 826-47).
- "400° C Isothermal Diagram of the Fe-Ni-S System" (*Annual Report, Director of the Geophysical Laboratory, Carnegie Institution of Washington, Year Book '66, Dec. 1967*, pp. 440-2).
- "Succession of Mineral Assemblages in Pyrrhotite-rich Ni-Cu Ores" (*ibid.*, pp. 431-4).
- NALDRETT, A. J. (with Kullerud, G.) "A Study of the Strathcona Mine and its Bearing on the Origin of the Nickel-Copper Ores of the Sudbury District, Ontario" (*Journal of Petrology*, vol. 3, no. 3, Oct. 1967, pp. 453-531).
- NALDRETT, A. J. (with Mason, G. D.) "Contrasting Archaean Ultramafic Bodies in Dundonald and Clergue Townships, Ontario" (*Canadian Journal of Earth Sciences*, vol. 5, no. 1, Feb. 1968, pp. 111-43).
- NALDRETT, A. J. (with Richardson, S. W.) "Effect of Water on the Melting of Pyrrhotite-Magnetite Assemblages" (*Annual Report, Director of the Geophysical Laboratory, Carnegie Institution of Washington, Year Book '66, Dec. 1967*, pp. 429-31).
- NALDRETT, A. J. (with Rucklidge, J. C.) "Electron Microprobe Studies of Minerals across a Section of the Sudbury Nickel Eruptive" (*Program CIM-GAC-MAC Annual Meeting, Vancouver, April 1968*) (abstract).
- NORRIS, G. "Plant Microfossils from the Hawks Crag Breccia, South-west Nelson, New Zealand" (*New Zealand Journal of Geology and Geophysics*, vol. 11, no. 2, June 1968, pp. 312-44).
- NORRIS, G. (with Hedlund, R. W.) "Spores and Pollen Grains from Fredericksburgian (Albian) Strata, Marshall County, Oklahoma" (*Pollen et Spores*, Paris, vol. 10, no. 1).
- RUCKLIDGE, J. C. (with Stumpff, E. F.) "Changes in the Composition of Petzite (Ag_3AuTe_2) during Analysis by Electron Probe" (*Neues Jahrbuch für Mineralogie, Monatshefte*, no. 1/2, Feb. 1968, pp. 61-8).
- SMITH, F. G. "Machine Plotting of Liquidus Data of Binary and Ternary Salt Systems" (*Canadian Mineralogist*, vol. 9, pt. 2, 1967, pp. 180-90).
- "Three Computer Programs for Contouring Map Data" (*Canadian Journal of Earth Sciences*, vol. 5, 1968, pp. 324-7).
- VAN LOON, J. C. "Determination of Aluminum in High Silica Materials" (*Atomic Absorption News Letter*, vol. 7, no. 1, Jan.-Feb. 1968, pp. 3-4).
- "The Rapid Determination of Fluorides in Mineral Fluorides using a Specific Ion Electrode" (*Analytical Letters*, vol. 1, no. 6, March 1968, pp. 393-8).
- "A Rapid Scheme of Silicate Analysis based on the Lithium Metaborate Fusion followed by Atomic Absorption Spectrometry. I. Determination of Silica" (*Analytical Letters*, vol. 1, no. 8, May 1968, pp. 519-24).
- VAN LOON, J. C. (with Parissis, C. M.) "The Determination of Titanium in Silicates" (*Analytical Letters*, vol. 1, no. 4, Jan. 1968, pp. 249-55).
- VAN LOON, J. C. (with Parissis, C. M., and Kingston, P. W.) "Analysis of Very Small Samples of Sulfide Minerals" (*Analytica Chimica Acta*, vol. 40, no. 2, Feb. 1968, pp. 334-8).
- WATERHOUSE, J. B. "The Classification and Description of Permian Spiriferida (brachiopoda) from New Zealand" (*Paleontographica*, vol. 129, abt. A, no. 1-3, April 1968, pp. 1-94).
- "Cool-water Faunas from the Permian of the Canadian Arctic" (*Nature*, vol. 216, no. 5110, Oct. 1967, pp. 47-9).
- "A Historical Survey of the Pre-Cretaceous Rocks of New Zealand. Part 2. Metamorphic and Igneous Rocks" (*New Zealand Journal of Geology and Geophysics*, vol. 10, no. 4, Nov. 1967, pp. 923-81).
- "A New Permian Fauna from New Caledonia, and its Relationship to Gondwana, Tethys" (*Associazione de Geologia Argentina. Simposio Internacional Estratigrafia y Paleontologia del Gondwana*. Resúmenes, Sept. 1967, p. 18).
- "A New Species of *Attenuatella* from New South Wales" (*Records of the Australian Museum*, vol. 42, July 1967, pp. 50-5).
- "New Zealand Permian Stages: a Rejoinder" (*New Zealand Journal of Geology and Geophysics*, vol. 11, no. 1, March 1968, pp. 268-73).
- "The Ornament of the Permian Brachiopod *Notospirifer Harrington 1955*" (*Journal of the Geological Society of Australia*, vol. 14, no. 2, Dec. 1967, pp. 273-80).
- "Proposal of Series and Stages for the Permian of New Zealand" (*Transactions of the Royal Society of New Zealand. Geology*, vol. 5, no. 6, July 1967, pp. 161-80).

—— "Redescription of the Permian Brachiopod *Anidanthus springsurensis* Booker" (*Transactions of the Royal Society of New Zealand. Geology*, vol. 5, no. 10, Jan. 1968, pp. 235-43).

GERMAN

- ARNOLD, R. K. Review, *Canadian Modern Language Review*, vol. 24, June 1968, pp. 87-8.
- BAUER, W. *Ein Jahr: Tagebuchblätter aus Kanada*. Hamburg: Merlin Verlag, 1967. Pp. 250.
- *The Price of Morning: Selected Poems*, translated, edited and with an introduction by Henry Beissel. Vancouver Prism International Press, 1968. Pp. 147.
- BOESCHENSTEIN, H. "Observations on Otto Flake"; in *Essays on German Literature in Honour of G. Joyce Hallimore*, ed. Michael Batts and Marketa Stankiewicz, pp. 236-55. Toronto: University of Toronto Press, 1968.
- BRETT-EVANS, D. "Sibilla von Bendorf - ein Nachtrag" (*Zeitschrift für deutsche Philologie*, vol. 87, 1967, pp. 91-8).
- (ed.) *Makers of the Twentieth Century. Marx, Nietzsche, Freud*. Englewood Cliffs: Prentice-Hall, 1968. Pp. vi, 217.
- EICHNER, H. "Nachwort"; in *Gespräch über die Poesie*, by Friedrich Schlegel, pp. 1*-23*.
- Reviews, *Germanistik*, vol. 8, no. 2, April 1967, pp. 438-9; *Seminar: A Journal of Germanic Studies*, vol. 3, no. 2, fall 1967, pp. 161-2.
- FARQUHARSON, R. H. (ed.) *Seminar: A Journal of Germanic Studies*. Biannual. Toronto: Canadian Association of University Teachers of German.
- FIELD, G. W. Review, *Canadian Modern Language Review*, vol. 24, June 1968, pp. 88-90.
- GUTHKE, K. S. (ed.) *D. Faust und Die Matrone von Ephesus*, by G. E. Lessing. Stuttgart: Reclam, 1968. Pp. 80.
- "Das Drama des Expressionismus und die Metaphysik der Enttäuschung"; in *Aspekte des Expressionismus*, ed. W. Paulsen, pp. 33-58. Heidelberg: Stiehm, 1968.
- "Die Germanistik in Kanada" (*Deutschlandfunk*, March 28, 1968) (radio talk).
- *Die Moderne Tragikomödie: Theorie und Gestalt*. Göttingen: Vandenhoeck und Ruprecht, 1968. Pp. 191.
- "Der Mythos des Bösen in der west-europäischen Romantik" (*Colloquia Germanica*, 1968, pp. 1-36).
- "Shakespeare in Urteil der deutschen Theaterkritik des 18. Jahrhunderts" (*Jahrbuch der deutschen Shakespeare Gesellschaft*, vol. 114, 1967, pp. 37-69).
- GUTHKE, K. S. (with Schneider, H.) *Gotthold Ephraim Lessing*. Stuttgart: Metzler, 1967. Pp. 79.
- MILNES, H. "Barker Fairley: A Bibliography" (*Seminar: A Journal of Germanic Studies*, vol. 3, no. 2, fall 1967, pp. 77-81).
- PESCHKEN, B. "Jacob Grimms Entlassung" (*Merkur*, vol. 21, 1967, pp. 1180-6).

HISTORY

- CAIRNS, J. C. "De Gaulle Confronts the British: The Legacy of 1940" (*International Journal*, vol. 23, no. 2, spring 1968, pp. 187-210).
- "France" (*Americana Annual*, 1968, pp. 279-85).
- Reviews, *American Historical Review*, vol. 73, no. 4, April 1968, pp. 1109-10, 1139-40; *Canadian Journal of History*, vol. 3, no. 1, March 1968, pp. 120-1; *International Journal*, vol. 22, no. 4, autumn 1967, pp. 705-6.
- CARELESS, J. M. S. *The Union of the Canadas, 1841-57*. Toronto: McClelland & Stewart, 1967. Pp. xii, 256.
- CONACHER, J. B. *The Aberdeen Coalition 1852-1855: A Study in Mid-Nineteenth Century Party Politics*. Cambridge, at the University Press, 1968. Pp. xiv, 607.
- Review, *Canadian Historical Review*, vol. 48, 1967, p. 288.
- COOK, G. R. "Canada and the French Canadian Question: The Next Phase"; in *The Decisive Years, 1968*, pp. 36-41.
- "Canadian Centennial Celebrations" (*International Journal*, vol. 22, no. 4, autumn 1967, pp. 659-63).
- "Canadian Historical Writing"; in *Scholarship in Canada*, 1967, ed. R. H. Hubbard, pp. 71-81. Toronto: University of Toronto Press, 1968.
- (ed.) *Confederation. Canadian Historical Readings*. Toronto: University of Toronto Press, 1967. Pp. 102.
- "Le Canada vaut une enquête" (*International Journal*, vol. 22, no. 2, spring 1968, pp. 291-5).
- *Le Sphinx parle français*. Montréal: les éditions H. M. H., 1967. Pp. 187.
- *The Politics of Discontent. Canadian Historical Readings*. Toronto: University of Toronto Press, 1967. Pp. 118.
- (ed.) *The Canadian Historical Review*.
- Reviews, *American Historical Review*, vol. 72, no. 4, July 1967, p. 1520; vol. 73, no. 2,

- Dec. 1967, pp. 627-8; *Canadian Historical Review*, vol. 48, no. 4, Dec. 1967, p. 379; *Journal of Liberal Thought*, vol. 3, no. 1, winter 1967, pp. 194-7; *Tamarack Review*, winter 1968, pp. 121-3.
- CRAIG, G. M. *The United States and Canada*. Cambridge, Mass.: Harvard University Press, 1968. Pp. 376.
- *Canada: Neighbor to the North*. Chicago: Rand, McNally, 1967. Pp. 64.
- Reviews, *Canadian Historical Review*, vol. 49, no. 1, March 1968, pp. 74-5.
- CRANMER-BYNG, J. L. "The First English Sinologists: Sir George Staunton and Reverend Robert Morrison"; in *Proceedings of the Symposium on Historical, Archaeological and Linguistic Studies on Southern China, S.E. Asia and the Hong Kong Region*, ed. F. S. Drake, pp. 247-60. Hong Kong University Press, 1967.
- Reviews, *Canadian Journal of History*, vol. 3, no. 1, spring 1968, pp. 114-17; *International Journal*, vol. 22, no. 4, autumn 1967, pp. 724-6; vol. 23, no. 1, winter 1968, pp. 170-1; *Journal of the Hong Kong Branch of the Royal Asiatic Society*, vol. 7, 1967, pp. 181-5.
- DAVIS, N. Z. "Gregory Nazianzen in the Service of Humanist Social Reform" (*Renaissance Quarterly*, vol. 20, no. 4, winter 1967, pp. 455-64).
- "Poor Relief, Humanism and Heresy: The Case of Lyon" (*Studies in Medieval and Renaissance History*, vol. 5, 1968, pp. 217-75).
- Reviews, *Archiv für Reformationsgeschichte*, vol. 57, nos. 1-2, 1966, pp. 276-8; *Bibliothèque d'humanisme et renaissance*, vol. 30, no. 2, 1968, pp. 413-14.
- DENT, J. "An Aspect of the Crisis of the Seventeenth Century: The Collapse of the Financial Administration of the French Monarchy (1653-61)" (*Economic History Review*, second series, vol. 20, no. 2, Aug. 1967, pp. 241-56).
- "Una crisi finanziaria nella Francia del Re Sole" (*Mercurio*, vol. 11, no. 2, Feb. 1968, pp. 52-6).
- Review, *Canadian Historical Review*, vol. 48, no. 4, Dec. 1967, pp. 393-4.
- ECCLES, W. J. *Canadian Society during the French Regime*. Montreal: Harvest House, 1968. Pp. 86.
- "Social Welfare Measures and Policies in New France" (*Actas y Memorias*, 36^o Congreso Internacional de Americanistas, España, 1964, vol. 4, Sevilla, 1966, pp. 9-20).
- GRENDLER, P. "Five Italian Occurrences of *Umanista*, 1540-1574" (*Renaissance Quarterly*, vol. 20, 1967, pp. 317-25).
- "Religious Restlessness in Sixteenth-Century Italy" (*Study Sessions 1966. Canadian Catholic Historical Association*, pp. 25-38).
- Reviews, *Catholic Historical Review*, vol. 13, no. 1, 1967, pp. 96-7; no. 4, 1968, p. 718.
- GERSON, J. J. Thesis Review, *Bulletin of the Institute of Historical Research*, vol. 40, no. 102, Nov. 1967, pp. 231-3.
- Review, *Journal of Asian Studies*, vol. 26, no. 2, Feb. 1967, pp. 297-8.
- GERSON, J. J. (with Pong, D.) Review, *Journal of Asian Studies*, vol. 27, no. 1, Nov. 1967, pp. 139-40.
- LLOYD, T. O. *The General Election of 1880*. London: Oxford University Press, 1968. Pp. 175.
- "The Impersonal University"; in *The University Game*, ed. H. Adelman and D. Lee, pp. 95-111. Toronto: House of Anansi, 1968.
- "Reform and Party Strife" (*Purnell History of the 20th Century*, no. 4, 1968, pp. 102-6).
- "The Fighting Sex" (*Purnell History of the 20th Century*, no. 13, 1968, pp. 338-43).
- "Selectivity and All That" (*Socialist Commentary*, Dec. 1967, pp. 20-2).
- Review, *English Historical Review*, vol. 83, no. 327, April 1968, pp. 426-7.
- MCNEAL, R. H. "Half a Century on the Path to Communism" (*International Journal*, vol. 22, no. 4, autumn 1967, pp. 539-46).
- "Stalin's Family: A Commentary on Svetlana Alliluyeva's Memoirs" (*The Russian Review*, vol. 27, no. 1, Jan. 1968, pp. 78-86).
- Reviews, *International Journal*, vol. 22, no. 4, pp. 716-17, 740-1, 741-2; *Jahrbücher für Geschichte Osteuropas*, Band 15, Heft 4, pp. 618-19.
- MOIR, J. S. "American Influences on Canadian Protestant Churches before Confederation" (*Church History*, vol. 36, no. 4, Dec. 1967, pp. 440-55).
- "Canada"; in *The American Annual*, 1968, pp. 133-8. New York: Americana Corporation, 1968.
- "Ontario"; in *Collier's Encyclopedia 1968 Year Book*, p. 411. New York: Crowell-Collier Educational Corporation, 1968.
- "The Upper Canadian Religious Tradition"; in *Profiles of a Province*, pp. 189-95. Toronto: Ontario Historical Society, 1967.
- MOIR, J. S. (with Ferris, T., and Onn, G. A.) *Readings in Canadian Civics*. Toronto: Ryerson, 1968. Pp. x, 238.
- ROSE, E. E. Review, *Canadian Historical Review*, vol. 49, no. 2, June 1968, p. 194.
- STACEY, C. P. "Confederation: The Atmosphere of Crisis"; in *Profiles of a Province*, Ontario Historical Society, pp. 73-9. Toronto: Ontario Historical Society, 1967.
- "Nationality: The Experience of Canada" (*Canadian Historical Association Annual Report*, 1967, pp. 10-19).
- THORNTON, A. P. *For the File on Empire*. London: Macmillan, 1968. Pp. vii, 421.

ISLAMIC STUDIES

- AHMAD, A. "Das Dilemma von Modernismus und Orthodoxie in Pakistan" (*Saeculum, Jahrbuch für Universalgeschichte*, no. 1/2, 1967, pp. 1-12).
- "Hind-Islamic Culture"; in *Encyclopaedia of Islam*, ed. B. Lewis, V. L. Ménage, C. Pellat and J. Schacht, vol. III, fasc. 47-8, pp. 438-40. Leiden: Brill, London: Luzac, 1967.
- "Mawdüdi and Orthodox Fundamentalism in Pakistan" (*Middle East Journal*, vol. 21, no. 3, 1967, pp. 369-80).
- "Problems of Islamic Modernism with Special Reference to the Indo-Pakistan Sub-Continent" (*Archives de Sociologie des Religions*, vol. 23, 1967, pp. 107-16).
- *Studies in Islamic Culture in the Indian Environment*. Oxford: Clarendon Press, 2nd ed., 1966. Pp. 311.
- Reviews, *Canadian Journal of History*, vol. 2, no. 3, 1967, pp. 113-14; *International Journal*, vol. 23, no. 2, 1967, pp. 314-15.
- BIRNBAUM, E. "The Michigan Codex" (*Vetus Testamentum*, vol. 17, no. 4, Oct. 1967, pp. 373-416).
- KENNY, L. M. "The Aftermath of Defeat in Egypt" (*International Journal*, vol. 23, no. 1, winter 1967-68, pp. 97-108).
- KURAN, E. "Atatürk and Ziya Gökalp" (*Cultura Turcica*, vol. 2, no. 2, 1965 [1967], pp. 137-40).
- "Conference on the Beginnings of Modernization in the Middle East, Chicago, October 3-6, 1966" (*ibid.*, pp. 266-8).
- "Husayn 'Awni Pasha"; in *Encyclopaedia of Islam*, ed. B. Lewis, V. L. Ménage, C. Pellat and J. Schacht, vol. III, fasc. 49-50, p. 621. Leiden: Brill; London: Luzac, 1967.
- "Said Paşa, Küçük"; in *İslâm Ansiklopedisi*, pp. 82-6. Istanbul: Millî Eğitim Basimevi, 1967.
- MARMURA, M. E. Reviews, *Dialogue*, vol. 4, no. 2, Sept. 1967, pp. 262-3. *Journal of the American Oriental Society*, vol. 87, no. 4, Dec. 1967, pp. 621-2.
- WICKENS, G. M. Reviews, *Journal of Asian History*, vol. 1, no. 2, 1967, pp. 184-7; *Literature: East and West*, vol. 11, no. 2, June 1967, pp. 186-7; *University of Toronto Quarterly*, vol. 37, no. 2, Jan. 1968, pp. 203-7.

ITALIAN AND HISPANIC STUDIES

- BARCLAY, T. B. Review, *Books Abroad*, vol. 41, no. 4, autumn 1967, p. 448.
- BELL, P. B. "Bibliography of Foreign Publications on the *Comedia*" (*Bulletin of the Comediantes*, vol. 19, no. 2, fall 1967, pp. 39-48; vol. 20, no. 1, spring 1968, pp. 12-25).
- BELL, P. B., and MCCREADY, W. T. (with Bishop, R. R., and Taylor, T. O.) "Literature of the Renaissance in 1966: Spanish and Portuguese" (*Studies in Philology*, vol. 64, no. 3, May 1967, pp. 425-511).
- BURKE, J. F. "More on the Title *El Libro de los Gatos*" (*Romance Notes*, vol. 9, no. 1, fall 1967, pp. 148-51).
- Review, *Hispania*, vol. 51, no. 2, May 1968, p. 361.
- CHANDLER, S. B. "La *De civica salute* di Sabadino degli Arienti" (*La Bibliofilia*, vol. 69, no. 2, 1967, pp. 129-45).
- CHANDLER, S. B., and MOLINARO, J. A. (eds.) *The World of Dante: Six Studies in Language and Thought*. Toronto: University of Toronto Press, 1968. Pp. xvi, 127. (Reprint).
- CORRIGAN, B. M. "Italian Theatre, 1966" (*Books Abroad*, vol. 41, no. 4, autumn 1967, pp. 398-401).
- Reviews, *Books Abroad*, vol. 41, no. 3, summer 1967, p. 336; vol. 42, no. 1, winter 1968, pp. 92-3; *Cesare Barbieri Courier*, vol. 9, no. 1, spring 1967, pp. 21-2; *Italica*, vol. 44, no. 4, Dec. 1967, pp. 498-9; *Romanic Review*, vol. 58, no. 3, Oct. 1967, pp. 215-16.
- ELLIS, K. A. A. (ed.) Francisco Ayala, *La cabeza del cordero*. Englewood Cliffs: Prentice-Hall, 1968. Pp. ix, 196.
- "Un análisis del poema 'Venus' de Rubén Darío" (*Revista Iberoamericana*, vol. 33, no. 64, July-Dec. 1967, pp. 251-7).
- "Un análisis estructural del poema 'A Roosevelt'" (*Cuadernos Hispanoamericanos*, nos. 212-213, Aug.-Sept. 1967, pp. 523-8).
- GLICKMAN, R. J. "Printing, Analyzing, and Indexing Literary Texts by Computer" (*Quarterly Bulletin, Computer Society of Canada*, vol. 7, no. 4, summer 1967, pp. 20-1).
- Review, *Hispania*, vol. 51, no. 1, March 1968, pp. 206-7.
- KUITUNEN, M. Review, *Canadian Modern Language Review*, vol. 24, no. 4, June 1968, pp. 85-6.
- LEVY, K. L. "Manuel Mejía Valejo - Novelista colombiano" (*Duquesne Hispanic Review*, vol. 5, no. 3, 1967, pp. 155-66).
- Reviews, *Canadian Modern Language Review*, vol. 24, no. 1, Oct. 1967, pp. 110-11;

- p. 111; *Hispania*, vol. 50, no. 3, Sept. 1967, pp. 610-11; vol. 51, no. 2, May 1968, pp. 373-4; p. 374; *Hispanic Review*, vol. 36, no. 2, April 1968, pp. 199-202.
- MARÍN, D. Review, *Hispania*, vol. 51, no. 2, May 1968, p. 283.
- MARÍN, D., and RUGG, E. (eds.) *Literatura española, selección*. New York: Holt, Rinehart and Winston, 1968. Vol. 1, pp. xi, 606; vol. 2, pp. x, 509.
- MOLINARO, J. A. "A Note on Leopardi's *Il Passero Solitario*" (*Studies in Philology*, vol. 64, no. 4, July 1967, pp. 640-53).
- MOLINARO, J. A., and CORRIGAN, B. M. "Bibliography of Italian Studies in America" (*Italica*, vol. 44, no. 2, June 1967, pp. 233-43; no. 3, Sept. 1967, pp. 356-66).
- NOCE, H. S. "G. A. Borgese"; in *Encyclopedia of World Literature in the 20th Century*, ed. W. B. Fleischmann, vol. 1, pp. 154-5. New York: Frederick Ungar Publishing Co., 1967.
- Review, *Comparative Literature*, vol. 20, no. 1, winter 1968, pp. 78-80.
- PARKER, J. H. *Gil Vicente*. New York: Twayne Publishers, 1967. Pp. 169.
- "Hispanic Studies in Canada, 1917-1967" (*Hispania*, vol. 50, no. 4, Dec. 1967, pp. 836-40).
- Reviews, *Canadian Modern Language Review*, vol. 24, no. 2, Jan. 1968, pp. 140-1; no. 4, June 1968, pp. 102-3; *Hispania*, vol. 51, no. 2, May 1968, p. 363; *Hispanic Review*, vol. 35, no. 4, Oct. 1967, pp. 392-3.
- RUGG, E. Reviews, *Canadian Modern Language Review*, vol. 24, no. 1, Oct. 1967, pp. 108-9; p. 110; no. 3, March 1968, pp. 102-3; no. 4, June 1968, pp. 84-5.
- STAGG, G. L. "Cervantes revisa su novela (*Don Quijote*, I Parte)", traducción de Mario Ferreccio Podestá (*Anales de la Universidad de Chile*, Año 124, no. 140, Oct.-Dec. 1966, pp. 5-33).
- VALDÉS, M. Reviews, *Hispania*, vol. 50, no. 3, Sept. 1967, pp. 607-8; *Hispanic Review*, vol. 35, no. 4, Oct. 1967, pp. 381-3; *Romanic Review*, vol. 59, no. 2, April 1968, pp. 72-3.
- VON RICHTHOFEN, E. *Vier altfranzösische Lais: Chievrefeuil, Aistic, Bisclavret, Guingamor*. 3rd enlarged ed. Tübingen: Max Niemeyer Verlag, 1968. Pp. xiii, 63.
- "Les deux citations en ancien français du *Guitalin* perdu, insérées dans le texte de la *Karlsmagnússaga*"; in *Mélanges offerts à Rita Lejeune*, pp. 763-5. Gembloux-Liège: Editions J. Duculot, 1968.
- WEBSTER, J. R. "Algunos de los aspectos de la vida disfrutada por las clases altas del siglo XIV mencionados por Francesc Eiximenis, OFM, (1340?-1409?)" (*Estudios Franciscanos*, vol. 68, 1967, pp. 343-54).
- WEBSTER, J. R. (ed.). *Francesc Eiximenis, la societat catalana al segle XIV*. Barcelona: Edicions 62, 1967. Pp. 95.

MATHEMATICS

- ANDERSON, D. V. *Review of Basic Statistical Concepts in Hydrology*. Proceedings of the 5th Canadian Hydrology Symposium, pp. 3-27. Ottawa: Queen's Printer, 1967.
- *Thermal Motions in Lake Ontario caused by Meteorological and Tidal Forces*. Research Report No. 75, Ontario Department of Lands and Forests. 1967. Pp. 15.
- ANDERSON, D. V., and FRY, F. E. J. *The Thermal Regime of Georgian Bay, 1953-1954*. Research Report No. 80, Ontario Department of Lands and Forests. 1967. Pp. 32.
- ANDERSON, D. V., and MATHESON, D. H. *Hamilton Bay - The Model of a Natural Waste Treatment Reactor*. Research Report No. 73, Ontario Department of Lands and Forests. 1967. Pp. 15.
- ANDERSON, D. V. (with Simpson, R. B.) *The Surface Tides of Lake Ontario*. Research Report No. 77, Ontario Department of Lands and Forests. 1967. Pp. 43.
- BARBEAU, E. J. "Maximal Semi-Algebras of Non-negative Functions on a Locally Compact Space" (*Duke Mathematical Journal*, vol. 35, no. 1, March 1968, pp. 163-7).
- BRAINERD, B. "An Analogue of a Theorem about Context-free Languages" (*Information and Control*, vol. 11, 1968, pp. 561-7).
- "A Transformational-generative Grammar for Rumanian Numerical Expressions" (*Cahiers Linguistique Théorique et Appliquée*, vol. 4, 1967, pp. 35-46).
- Reviews, *Canadian Mathematical Bulletin*, vol. 10, 1967, pp. 315, 613; *Mathematical Monthly*, vol. 74, 1967, pp. 879-80.
- BRAINERD, B., CLARKE, D. A., ROSS, R. A., et al. *Topic in Mathematics*, vols. I, II, III, IV. English edition, London: Frederick Warne, 1967.
- CLARKE, D. A. Reviews, *American Mathematical Monthly*, vol. 75, no. 4, April 1968, pp. 428-9; *Journal of Symbolic Logic*, vol. 33, no. 1, March 1968, pp. 115-16; *Zentralblatt für Mathematik*, vol. 133, no. 2, July 31, 1967, pp. 249-50, 251; vol. 137, no. 1, Nov. 15, 1967, p. 9; vol. 134, no. 1, April 1, 1968, p. 13 (2); vol. 143, no. 2, April 10, 1968, p. 255.
- COXETER, H. S. M. *Wstęp do geometrii dawnej i nowej*. Warsaw: Państwowe Wydawnictwo Naukowe, 1967. Pp. 488 (translation of *Introduction to Geometry*).
- "Finite Groups generated by Unitary Reflections" (*Abhandlungen aus dem Mathematischen Seminar der Universität Hamburg*, vol. 31, 1967, pp. 125-35).
- "The Lorentz Group and the Group of Homographies"; in *Proceedings of the International Conference on the Theory of Groups*, Australian National University, Canberra, ed. L. G. Kovacs and B. H. Neumann, pp. 73-7. New York: Gordon and Breach, 1967.

- "Loxodromic Sequences of Tangent Spheres" (*Aequationes Mathematicae*, vol. 1, 1968, pp. 75-92).
- "Music and Mathematics" (*Mathematics Teacher*, vol. 61, 1968, pp. 312-20; reprinted from *Canadian Music Journal*).
- "The Problem of Apollonius" (*American Mathematical Monthly*, vol. 75, 1968, pp. 5-15).
- DUFF, G. F. D. "Differences, Derivatives, and Decreasing Rearrangements" (*Canadian Journal of Mathematics*, vol. 19, no. 4, 1967, pp. 1153-78).
- "Exploration and Invention in Mathematics" (*Ontario Mathematics Gazette*, vol. 6, no. 1, Dec. 1967, pp. 4-14; no. 2, March 1968, pp. 1-19).
- FRASER, D. A. S. "A Black Box or a Comprehensive Model" (*Technometrics*, vol. 10, 1968, pp. 219-29).
- "The Condition Wishart: Normal and Non-normal" (*Annals Mathematical Statistics*, vol. 39, 1968, pp. 593-605).
- "Data Transformations and the Linear Model" (*Annals Mathematical Statistics*, vol. 38, 1967, pp. 1456-65).
- "Statistical Models and Invariance" (*ibid.*, pp. 1061-7).
- *The Structure of Inference*. New York: John Wiley, 1968. Pp. x, 344.
- "Sufficiency or Conditional Sufficiency" (*Sankhya*, vol. A29, 1967, pp. 239-44).
- MASSON, D. "Analyticity in the Potential Strength" (*Journal of Mathematical Physics*, vol. 8, no. 11, Nov. 1967, pp. 2308-14).
- Review, *Canadian Mathematical Bulletin*, vol. 10, no. 4, 1967, p. 627.
- MAY, K. O. (ed.) *Lectures on Calculus*. San Francisco: Holden-Day, 1968. Pp. vi, 180.
- (ed.) *Linear Algebra and Analysis*, by André Lichnerowicz, trans. Alison Johnson. San Francisco: Holden-Day, 1967. Pp. xiv, 304.
- "Mathematics and Art" (*Mathematics Teacher*, vol. 60, Oct. 1967, pp. 568-72).
- *Mathematics since 1800. Syllabus for a course*. Toronto: Department of Mathematics, 1967. Pp. 41.
- "Undergraduate Research: Some Conclusions" (*American Mathematical Monthly*, vol. 75, Jan. 1968, pp. 70-4).
- *Who Killed Determinants?* A black and white film. San Francisco: Individual lectures project of the Mathematical Association of America. Distributed by Modern Learning Aids. 1967. 1 hour.
- Reviews, *American Mathematical Monthly*, Aug. 1967-June 1968, about 400 "telegraphic reviews in Review Section; *Mathematical Reviews*, vol. 34, July 1967, p. 2; Sept. 1967, pp. 425, 513; Nov. 1967, pp. 1014, 1015; vol. 35, April 1968, pp. 738-9; May 1968, p. 978.
- RANGER, K. B. "Incompressible Viscous Flow in a Two Dimensional Channel under a Transverse Magnetic Field" (*Journal of Mathematics and Physics*, vol. 46, no. 1, 1967, pp. 21-7).
- "Note on some Integral Transformations for Generalized Axially Symmetric Potentials" (*Journal of Mathematics and Mechanics*, vol. 16, no. 2, 1967, pp. 1377-80).
- Reviews, *Mathematical Reviews*, vol. 34, Sept. 1967, no. 3857; no. 5, Nov. 1967, no. 7098; vol. 35, Jan. 1968, no. 402.
- ROSENTHAL, P. "A Note on Unicellular Operators" (*Proceedings of the American Mathematical Society*, vol. 19, no. 2, April 1968, pp. 505-6).
- ROSENTHAL, P., and DOUGLAS, R. G. "A Necessary and Sufficient Condition that an Operator be Normal" (*Journal of Mathematical Analysis and Applications*, vol. 22, no. 1, April 1968, pp. 10-11).
- SEN, D. K. *Fields and/or Particles*. London: Academic Press, 1968. Pp. x, 140.
- SHARP, W. T. (with Biedenhorn, L. C., and Brouwer, W.) "The Algebra of Representations of some Finite Groups" (*Rice University Studies*, vol. 54, no. 2, spring 1968, pp. 1-68).
- SHARP, W. T. (with Hargrove, C. K., and Stairs, D. G.) "Elementary Particle Physics"; in *Physics in Canada: Survey and Outlook*, Science Secretariat Special Study No. 2, pp. 269-82. Ottawa: Queen's Printer, 1967.
- SHERK, F. A. "Finite Incidence Structure with Orthogonality" (*Canadian Journal of Mathematics*, vol. 19, no. 5, 1967, pp. 1078-83).
- Reviews, *Mathematical Reviews*, vol. 33, no. 6, June 1967, p. 1278; vol. 34, no. 1, July 1967, p. 112; no. 6, Dec. 1967, p. 1363; vol. 35, no. 1, Jan. 1968, p. 166.
- SMITH, R. A. "The Circle Problem in an Arithmetic Progression" (*Canadian Mathematical Bulletin*, vol. 11, no. 2, 1968, pp. 175-84).
- SMITH, R. A. and CHOWLA, S. "On Certain Functional Equations" (*Det kongelige Norske Videnskabers Selskabs Forhandlingen*, vol. 40, no. 9, 1967, pp. 43-7).

NEAR EASTERN STUDIES

- MCCULLOUGH, W. S. *Jewish and Mandaean Incantation Bowls in the Royal Ontario Museum*. Toronto: University of Toronto Press, 1967. Pp. 70.
- REDFORD, D. B. "The Father of Khnumhotpe II of Beni Hasan" (*Journal of Egyptian Archaeology*, vol. 53, 1967, pp. 158-9).

- "The Literary Motif of the Exposed Child (cf. Ex. ii 1-10)" (*Numen: International Review for the History of Religions*, vol. 14, 1967, pp. 209-28).
- Review, *Journal of the American Oriental Society*, vol. 87, 1967, pp. 650-3.
- SWEET, R. F. G. Reviews, *University of Toronto Quarterly*, vol. 36, 1967, pp. 453-71; vol. 37, 1968, pp. 506-13.
- TALMAGE, F. "An Hebrew Polemical Treatise: Anti-Gathar and Anti-Orthodox" (*Harvard Theological Review*, vol. 60, 1967, pp. 323-48).
- "Gersonides" and "Crescas, Hasdai"; articles in *Encyclopedia of Philosophy*. New York: Macmillan, 1967.
- "Heret 'enoš in Isa. 8:1" (*Hebrew Theological Review*, vol. 60, 1967, pp. 465-8).
- "R. David Kimḥi as Polemicist" (*Hebrew Union College Annual*, vol. 38, 1967, pp. 213-35).
- WEVERS, J. W. "Septuaginta Forschungen seit 1954" (*Theologische Rundschau*, vol. 33, 1968, pp. 18-76).
- WILLIAMS, R. J. *Hebrew Syntax: an Outline*. Toronto: University of Toronto Press, 1967. Pp. xii, 122.

PHILOSOPHY

- CUNNINGHAM, F. A. "More on Understanding in the Social Sciences" (*Inquiry: an Interdisciplinary Journal of Philosophy and the Social Sciences*, vol. 10, no. 3, autumn 1967, pp. 321-6).
- DRAY, W. H. "Explaining What' in History"; in *Readings in the Philosophy of the Social Sciences*, ed. May Brodbeck, pp. 343-8. New York: Macmillan, 1968. (Reprinted from *Theories of History*, ed. P. L. Gardiner.)
- "Commentary on R. S. Peters' 'Aims of Education - a Conceptual Inquiry'"; in *Philosophy and Education*, ed. R. S. Crittenden, pp. 20-4. Toronto: Ontario Institute for Studies in Education, 1967.
- Review, *The Philosophical Review*, vol. 76, no. 4, Oct. 1967, pp. 529-31.
- DUNPHY, W. (ed.) *The New Morality*. New York: Herder & Herder, 1967. Pp. 192.
- DUNPHY, W., and MAURER, A. "A Promising New Discovery for Sigerian Studies" (*Mediaeval Studies*, vol. 29, 1967, pp. 364-9).
- EVANS, D. D. "Differences between Scientific and Religious Assertions"; in *Science and Religion*, ed. Ian G. Barbour, pp. 101-33. New York: Harper & Row, 1968.
- (ed. and contributor) *Peace, Power and Protest*. Toronto: Ryerson, 1967. Pp. 314.
- FACKENHEIM, E. L. "The Historicity and Transcendence of Philosophical Truth"; in *Proceedings of the 7th Inter-American Congress of Philosophy*, pp. 77-92. Québec: Laval, 1967.
- "Idolatry as a Modern Religious Possibility"; in *The Religious Situation 1968*, pp. 254-87. Boston: Beacon Press, 1968.
- "Jewish Values in the Post-Holocaust Future: A Symposium" (*Judaism*, vol. 16, no. 3, summer 1967, pp. 269-73, 289-90, 295-6).
- "Likkuy Elohim (Eclipse of God)"; in *Prozdor*, pp. 3-10. Tel Aviv: Davar, Oct. 1967.
- "Man and His World in the Perspective of Judaism"; in *New Theology No. 5*, ed. M. E. Marty and D. G. Peerman, pp. 47-61. New York: Macmillan, 1968.
- "On Faith in the Secular World"; in *Out of the Whirlwind*, ed. A. H. Friedlander, pp. 493-514. New York: Union of American Hebrew Congregations, 1968.
- "A Commentary on *Philosophy and Education: A Synoptic View*, by P. H. Phenix"; in *Philosophy and Education: Proceedings, International Seminary*, March 23-25, 1966, pp. 139-42. Toronto: Ontario Institute for Studies in Education, 1967.
- *The Religious Dimension in Hegel's Thought*. Bloomington, Ind.: Indiana University Press, 1968. Pp. xiv, 277.
- "Salvation in Judaism" (*European Judaism*, vol. 2, no. 1, summer 1967, pp. 23-4).
- GALLOP, D. "Ayers on 'Could' and 'Could Have'" (*Philosophical Quarterly*, vol. 17, no. 68, July 1967, pp. 255-6).
- Review, *Phoenix*, vol. 21, no. 2, 1967, pp. 149-50.
- GAUTHIER, D. P. "How Decisions are Caused (but not Predicted)" (*Journal of Philosophy*, vol. 65, no. 6, March 21, 1968, pp. 170-1).
- "Moore's Naturalistic Fallacy" (*American Philosophical Quarterly*, vol. 4, no. 4, Oct. 1967, pp. 460-75).
- "Progress and Happiness: A Utilitarian Reconsideration" (*Ethics*, vol. 78, no. 1, Oct. 1967, pp. 77-82).
- "The Unity of Wisdom and Temperance" (*Journal of the History of Philosophy*, vol. 6, no. 2, April 1968, pp. 157-9).
- GOUDGE, T. A. Articles on: "Henri Bergson" (vol. I, pp. 287-94); "L. von Bertalanffy" (vol. I, pp. 306-7); "Samuel Butler" (vol. I, pp. 434-6); "Charles Darwin" (vol. II, pp. 294-5); "Erasmus Darwin" (vol. II, pp. 295-6); "Emergent Evolutionism" (vol. II, pp. 474-7); "Asa Gray" (vol. III, pp. 377-8); "Thomas Henry Huxley" (vol. IV, pp. 101-3); "Chevalier de Lamarck" (vol. IV, pp. 376-7); "Lecomte du Nouy" (vol.

- IV, pp. 417-18); "Life, Origin of" (vol. IV, pp. 477-9); "Jacques Loeb" (vol. IV, pp. 503-4); "C. Lloyd Morgan" (vol. V, pp. 392-3); "G. J. Romanes" (vol. VII, pp. 205-6); "J. C. Smuts" (vol. VII, pp. 464-5); "Teilhard de Chardin" (vol. VIII, pp. 83-4); "Jacob von Uexküll" (vol. VIII, pp. 172-4); "Alfred Russel Wallace" (vol. VIII, pp. 276-7); "J. H. Woodger" (vol. VIII, pp. 346-7); in *Encyclopedia of Philosophy*, 8 volumes. New York, 1967.
- "A Century of Philosophy in English-speaking Canada" (*Dalhousie Review*, vol. 47, no. 4, 1968, pp. 537-49).
- HANLY, C. M. T. "Commentary on Some Recent Developments in Philosophy of Education in Europe"; in *Philosophy and Education*, ed. R. S. Crittenden, pp. 106-10. Toronto: Ontario Institute for Studies in Education, Monograph series no. 3, 1967.
- "The Ethics of Independence"; in *An Independent Foreign Policy for Canada*, ed. S. Clarkson, pp. 17-28. Toronto: McClelland and Stewart, 1967.
- "Secularization of Western Society"; in *Proceedings of the 7th Inter-American Congress of Philosophy*, pp. 343-52. Québec: Laval, 1967.
- Reviews, *Dialogue*, vol. 6, no. 1, June 1967, pp. 121-2; no. 3, Dec. 1967, pp. 443-5.
- HUGGETT, W. J. Review, *Dialogue*, vol. 6, no. 3, Dec. 1967, pp. 419-23.
- HUNTER, J. F. M. "Aune and Others on Ifs and Cans" (*Analysis*, vol. 28, no. 3, 1968, pp. 107-9).
- "Wittgenstein's Theory of Linguistic Self-Sufficiency" (*Dialogue*, vol. 6, no. 3, 1967, pp. 367-78).
- LANGAN, T. F. "Formal Insight into Material Natures"; in *Phenomenology in America*, ed. J. Eddie, pp. 109-24. Chicago: Quadrangle Books, 1967.
- "S. Kierkegaard, the Concept of Irony" (*Theological Studies*, vol. 27, no. 3, Sept. 1967, pp. 592-5).
- MAURER, A., and DUNPHY, W. "A Promising New Discovery for Sigerian Studies" (*Mediaeval Studies*, vol. 29, 1967, pp. 364-9).
- MCRAE, R. F. Review, *Dialogue*, vol. 6, no. 4, March 1968, pp. 622-4.
- MORRISON, J. C. *Meaning and Truth in Wittgenstein's Tractatus*. The Hague: Mouton, 1968. Pp. 148.
- OWENS, J. "Actuality in the 'Prima Via' of St. Thomas" (*Mediaeval Studies*, vol. 29, 1967, pp. 26-46).
- "Dewart's View of Christian Philosophy and Contemporary Man"; in *The Future of Belief Debate*, ed. Gregory Baum, pp. 93-100. New York: Herder and Herder, 1967.
- *An Interpretation of Existence*. Milwaukee: Bruce Publishing Company, 1968.
- "The Range of Existence"; in *Proceedings of the 7th Inter-American Congress of Philosophy*, pp. 44-59. Québec: Laval, 1967.
- "Recent Footnotes to Plato" (*Review of Metaphysics*, vol. 20, 1967, pp. 648-61).
- "The Study of Knowledge - Natural Philosophy or Metaphysics?" (*New Scholasticism*, vol. 42, 1968, pp. 103-6).
- "This Truth Sublime"; in *Speaking of God*, ed. Denis Dirscherl, pp. 128-56. Milwaukee: Bruce Publishing Company, 1967.
- Review, *Dialogue*, vol. 6, 1967, pp. 455-9.
- OWENS, J. (with Freeman, E.) *The Wisdom and Ideas of St. Thomas Aquinas*. New York: Fawcett World Library, 1968.
- PAYZANT, G. Reviews, *Dalhousie Review*, vol. 47, no. 3, autumn 1967, p. 439; winter 1967-68, pp. 126-7.
- PEGIS, A. C. "The Bonaventuran Way to God" (*Mediaeval Studies*, vol. 29, 1967, pp. 206-42).
- "The Notion of Man in the Context of Renewal"; in *The Theology of Renewal*, ed. L. K. Shook, vol. I, pp. 250-64. Montreal: Palm Publishers, 1968.
- "Who Reads Aquinas?" (*Thought*, vol. 42, no. 167, winter 1967, pp. 488-504).
- PIETERSMA, H. "Husserl and Frege" (*Archiv für Geschichte der Philosophie*, vol. 49, no. 3, Dec. 1967, pp. 298-323).
- "Predestination and the Trinity" (*The Reformed Journal*, vol. 17, no. 9, Nov. 1967, pp. 9-12).
- SAVAN D. Commentary on "Philosophy and the Teaching-Learning Process" by P. G. Smith; in *Philosophy and Education*, ed. R. S. Crittenden, pp. 52-6. Toronto: Ontario Institute for Studies in Education, Monograph no. 3, 1967.
- "A Russian Existentialist: review of L. Slustov, *Athens and Jerusalem*, trans. B. Martin, Ohio University Press, 1966" (*University of Toronto Quarterly*, Oct. 1967, pp. 102-5).
- SPARSHOTT, F. E. "Truth in Fiction" (*Journal of Aesthetics and Art Criticism*, vol. 26, no. 1, fall 1967, pp. 3-7).
- "The Unity of Aesthetic Education" (*Journal of Aesthetic Education*, vol. 2, no. 2, April 1968, pp. 9-21).
- Reviews, *Classical World*, vol. 61, no. 5, Jan. 1968, pp. 183-4; *Phoenix*, vol. 22, no. 1, spring 1968, pp. 73-9.
- SYNAN, E. A. "The Ethics of Continuity"; in *The New Morality*, ed. W. Dunphy, pp. 121-40. New York: Herder and Herder, 1967.
- "The Life of Intellect" (*The Basilian Teacher*, vol. 11, Dec. 1967, pp. 409-13).

- "Master Peter Bradlay on the 'Categories'" (*Mediaeval Studies*, vol. 29, 1967, pp. 273-327).
- Reviews, *Salesian Studies*, vol. 5, no. 1, winter 1968, pp. 86-7; *Speculum*, vol. 42, no. 2, April 1967, pp. 403-6.
- WHEATLEY, J. M. O. Review, *Journal of the American Society for Physical Research*, vol. 61, no. 3, July 1967, pp. 273-7.
- WILSON, F. F. "Definition and Discovery (I)" (*British Journal for the Philosophy of Science*, vol. 18, no. 4, Feb. 1968, pp. 287-303).
- "The Notion of Logical Necessity in the Later Philosophy of Rudolph Carnap"; in *Carnap and Goodman: Two Formalists*, by A. Hausman and F. Wilson, pp. 99-225. The Hague: Nijhoff, 1968.
- "The World and Reality in the *Tractatus*" (*Southern Journal of Philosophy*, vol. 5, no. 4, winter 1967, pp. 253-60).
- WINGELL, A. E. "Historical Conjunctions of Moral and Cosmic Order"; in *The New Morality*, ed. William Dunphy, pp. 107-19. New York: Herder and Herder, 1967.
- WOODS, J. "Aims of Education: A Commentary"; in *Philosophy and Education*, ed. R. S. Crittenden, pp. 16-20. Toronto: Ontario Institute for Studies in Education, Monograph no. 3, 1967.
- "A propos de '(∃x)(y)[(φy ≡ ·y = x) · φx]'" (*Dialogue*, vol. 6, no. 3, June 1968, pp. 78-90).
- "Is there a Relation of Intentional Conjunction?" (*Mind*, vol. 76, no. 303, July 1967, pp. 357-68; *Review of Metaphysics*, vol. 21, no. 3, Dec. 1967, p. 402 (abstract)).
- "On Species and Determinates" (*Noûs*, vol. 1, no. 3, Aug. 1967, pp. 243-54; *Review of Metaphysics*, vol. 21, no. 3, Dec. 1967, p. 406 (abstract)).
- "The Opacity of Tridence" (*Analysis*, vol. 28, no. 2, Dec. 1967, pp. 43-8).
- Reviews, *Dialogue*, vol. 6, no. 3, Dec. 1967, pp. 408-10; *Philosophy and Phenomenological Research*, vol. 28, no. 3, March 1968, p. 460.

PHYSICS

- ALLIN, E. J., MAY, A. D., STOICHEFF, B. P., STRYLAND, J. C., and WELSH, H. L. "Spectroscopy Research at the McLennan Physical Laboratories of the University of Toronto" (*Applied Optics*, vol. 6, no. 10, Oct. 1967, pp. 1597-1608).
- ANYAS-WEISS, N., LITHERLAND, A. E., and RÖPKE, H. "Resonance Width Measurements using the Doppler Shift Attenuation Method" (*Physics Letters*, vol. 27B, no. 3, June 24, 1968, pp. 161-3).
- ARMSTRONG, R. L., BLUMENFELD, S. M., and GRAY, C. G. "Infrared Spectra, Rotational Correlation Functions and Intermolecular Mean Squared Torques in Compressed Gaseous Methane" (*Canadian Journal of Physics*, vol. 46, no. 11, June 1, 1968, pp. 1331-40).
- ARMSTRONG, R. L., and TWARD, E. (with GORDON, R. G.) "Nuclear Spin Relaxation and the Collision Frequency in Dense Gases" (*Journal of Chemical Physics*, vol. 48, no. 6, March 15, 1968, pp. 2655-7).
- ARMSTRONG, R. L., and TWARD, E. "Spin-lattice Relaxation in Dilute Gases. II ^{19}F Relaxation in CF_4 and SiF_4 " (*Journal of Chemical Physics*, vol. 48, no. 1, Jan. 1, 1968, pp. 332-4).
- BAKER, G. L., and ARMSTRONG, R. L. "Temperature Variation of Nuclear Quadrupole Resonance Frequencies" (*American Journal of Physics*, vol. 36, no. 1, Jan. 1968, pp. 33-6).
- BAKSI, A. K., and YORK, D. (with Watkins, N. D.) "Age of the Steens Mountain Geomagnetic Polarity Transition" (*Journal of Geophysical Research*, vol. 72, no. 24, Dec. 15, 1967, pp. 6299-308).
- BARNES, C., and ANDERSON, D. V. "Acoustical Radiation Field of a Spherical Condensation" (*Journal of the Acoustical Society of America*, vol. 43, no. 4, April 1968, pp. 701-3).
- "Damped Oscillations of a Bubble in an Extended Liquid" (*Journal of the Acoustical Society of America*, vol. 43, no. 3, March 1968, p. 639).
- BREWER, A. W. "Ozone Sondes"; in *International Dictionary of Geophysics*, ed. S. K. Runcorn, pp. 1120-2. Oxford: Pergamon Press, 1968.
- BREWER, A. W. (with Godson, W. L., and Boville, B. W.) "Meteorology and the Atmospheric Environmental Sciences"; in *Special Study No. 2, Physics in Canada, Survey and Outlook*, section 5, pp. 191-212. Ottawa: Queen's Printer, 1967.
- CHEN, T. W. "Functional Derivatives and Vector Meson Fields" (*Journal of Mathematical Physics*, vol. 8, no. 12, Dec. 1967, pp. 2342-6).
- CHEN, T. W., and PUGH, R. E. "Field Theory, Partial Conservation of Axial-Vector Current, and Kawarabayashi-Suzuki-Riazuddin-Fayyazuddin Sum Rule" (*Physical Review Letters*, vol. 20, no. 16, April 15, 1968, pp. 880-1).
- CLEMENTS, W. R. L., and STOICHEFF, B. P. "Raman Linewidths for Stimulated Threshold and Gain Calculations" (*Applied Physics Letters*, vol. 12, no. 8, April 15, 1968, pp. 246-8).
- COPLEY, L. A., and MASSON, D. "Broken Symmetry Sum Rules and Algebra of Currents, II." (*The Physical Review*, vol. 162, no. 5, Oct. 25, 1967, pp. 1410-15).

- "Padé Approximant Calculation of π - π Scattering" (*The Physical Review*, vol. 164, no. 5, Dec. 25, 1967, pp. 2059-62).
- CORDES, J. G., and O'DONNELL, P. J. "Prediction of the Isovector Nucleon Form Factor $F_V(t)$ " (*Physical Review Letters*, vol. 20, no. 25, June 17, 1968, pp. 1462-5).
- CORDES, J. G., and MOFFAT, J. W. "Sum-Rule Test of Axial Charge Equal-Time Commutation Relations" (*The Physical Review*, vol. 164, no. 5, Dec. 25, 1967, pp. 1787-90).
- FARQUHAR, R. M. "Geochronology, Radioactive"; in *International Dictionary of Geophysics*, ed. S. K. Runcorn, pp. 552-61. Oxford: Pergamon Press, 1968.
- FOWLER, M. "Analyticity and the Kondo Effect" (*The Physical Review*, vol. 160, no. 3, Aug. 15, 1967, pp. 463-7).
- FOWLER, M. (with Maki, K.) "Conditions for Bound States in a Superconductor with a Magnetic Impurity" (*The Physical Review*, vol. 164, no. 2, Dec. 10, 1967, pp. 484-8).
- GAJDICAR, T. J., and MOFFAT, J. W. "High Energy Behaviour of π -N Scattering and the Regge Pole Model" (*Physics Letters*, vol. 25B, no. 10, Nov. 27, 1967, pp. 608-11).
- GAJDICAR, T. J., LOGAN, R. K., and MOFFAT, J. W. "The $\rho + \rho'$ Model for Pion-Nucleon Charge-Exchange Scattering and Polarization" (*The Physical Review*, vol. 170, no. 5, June 25, 1968, pp. 1599-1601).
- GARLAND, G. D. "Possible Rates of Continental Drift"; in *Continental Drift, Secular Motion of the Pole and Rotation of the Earth*, ed. W. Markowitz and B. Guinot, pp. 19-24. Dordrecht: Teidel Press, 1968.
- GOBLE, D. F., and TRAINOR, L. E. H. "Liquid Helium and the Properties of a Bose-Einstein Gas. I. A Numerical Study of Hard-core Models" (*Canadian Journal of Physics*, vol. 46, no. 7, April 1, 1968, pp. 839-54).
- GUCCIONE-GUSH, R., GUSH, H. P., and VAN KRANENDONK, J. "Theory of Two-Photon Absorption" (*Canadian Journal of Physics*, vol. 45, no. 8, Aug. 1967, pp. 2513-24).
- GUPTA, R. K. "Rotational States in Deformed Even-Even Nuclei" (*Canadian Journal of Physics*, vol. 45, no. 11, Nov. 1967, pp. 3521-32).
- HARPER, C. T. "The Geological Interpretation of Potassium-argon Age of Metamorphic Rocks from the Scottish Caledonides" (*Scottish Journal of Geology*, vol. 3, pt. 1, no. 7, 1967, pp. 46-66).
- "Isotopic Ages from the Appalachians and their Tectonic Significance" (*Canadian Journal of Earth Sciences*, vol. 5, no. 1, Feb. 1968, pp. 49-59).
- "On the Interpretation of Potassium-argon Ages from Precambrian Shields and Phanerozoic Orogens" (*Earth and Planetary Science Letters*, vol. 3, no. 2, Nov. 1967, pp. 128-32).
- HARPER, C. T. (with Landis, C. A.) "Potassium-argon Ages from Regionally Metamorphosed Rocks, South Island, New Zealand and some Tectonic Implications" (*Earth and Planetary Science Letters*, vol. 2, no. 5, Aug. 1967, pp. 419-29).
- HERMANCE, J. F., and GARLAND, G. D. "Deep Electrical Structure under Iceland" (*Journal of Geophysical Research*, vol. 73, no. 12, June 15, 1968, pp. 3797-800).
- HEWITT, J. S. (with Walker, J.) "Pulsed Source Measurements on Neutron Thermalization in Graphite by the Reaction Rate Technique"; in *Proceedings of the Symposium on Neutron Thermalization and Reactor Spectra*, vol. 2, pp. 347-62. Vienna: International Atomic Energy Agency, 1968.
- HINES, C. O. "Applications of Gravity-Wave Theory to Upper Atmospheric Studies"; in *Winds and Turbulence in Stratosphere, Mesosphere and Ionosphere*, ed. K. Rawer, pp. 364-70. Amsterdam: North-Holland Publishing Company, 1968.
- "An Effect of Molecular Dissipation in Upper Atmospheric Gravity Waves" (*Journal of Atmospheric and Terrestrial Physics*, vol. 30, no. 5, May 1968, pp. 845-9).
- "An Effect of Ohmic Losses in Upper Atmospheric Gravity Waves" (*ibid.*, pp. 851-6).
- "Gravity Waves in Earth's Upper Atmosphere" (*Physics in Canada*, vol. 23, no. 5, winter 1967, pp. 6-21).
- "Gravity Waves in the Presence of Wind Shears and Dissipative Processes"; in *Winds and Turbulence in Stratosphere, Mesosphere and Ionosphere*, ed. K. Rawer, pp. 356-63. Amsterdam: North-Holland Publishing Company, 1968.
- "Motions in the Ionosphere"; in *International Dictionary of Geophysics*, ed. S. K. Runcorn, pp. 1007-14. Oxford: Pergamon Press, 1968.
- "Some Consequences of Gravity-Wave Critical Layers in the Upper Atmosphere" (*Journal of Atmospheric and Terrestrial Physics*, vol. 30, no. 5, May 1968, pp. 837-43).
- HINES, C. O. (with Raghava Rao, R.) "Validity of Three-Station Methods of Determining Ionospheric Motions" (*Journal of Atmospheric and Terrestrial Physics*, vol. 30, no. 5, May 1968, pp. 979-93).
- HO, N. S., and MANCHESTER, F. D. "The Electrical Resistivity of Palladium-Hydrogen and Palladium-Deuterium Alloys between 4°K and 300°K" (*Canadian Journal of Physics*, vol. 46, no. 11, June 1, 1968, pp. 1341-5).
- HORRIGAN, E. W. "Development of Linear Accelerators" (*Canadian Nuclear Technology*, vol. 6, no. 5, Sept.-Oct. 1967, pp. 27-30).
- HUSSAIN, S. M., and MCNEILL, K. G. "The Angular Distribution of Fast Photoneutrons for Nuclides with N about 56" (*Canadian Journal of Physics*, vol. 45, no. 9, Sept. 1967, pp. 2851-7).

- IRIBARNE, J. V. (with Mason, B. J.) "Electrification accompanying the Bursting of Bubbles in Water and Dilute Aqueous Solutions" (*Transactions of the Faraday Society*, vol. 63, pt. 9, no. 537, Sept. 1967, pp. 2234-45).
- JAMES, H. M., and VAN KRANENDONK, J. "Theory of the Anomalous Intensities in the Vibrational Raman Spectra of Solid Hydrogen and Deuterium" (*The Physical Review*, vol. 164, no. 3, Dec. 15, 1967 pp. 1159-68).
- JOHNSTON, T. F., PRENTICE, J. D., STEENBERG, N. R., YOON, T. S., *et al.* "Properties of the g Meson" (*Physical Review Letters*, vol. 20, no. 24, June 10, 1968, pp. 1414-17).
- KEY, A. W., PRENTICE, J. D., STEENBERG, N. R., WEST, E., YOON, T. S., *et al.* "Four- and Five-body Final States from 3-GeV/c π - p Interactions" (*The Physical Review*, vol. 166, no. 5, Feb. 25, 1968, pp. 1430-47).
- KING, J. D., NEFF, N., and TAYLOR, H. W. "A Note on the Decay of Scandium-44m" (*Canadian Journal of Physics*, vol. 45, no. 7, July 1967, pp. 2446-53).
- KNAAP, H. F. P., GORNALL, W. S., and STOICHEFF, B. P. "Evidence of a Fourth Component in the Brillouin Spectrum of Liquid Glycerine" (*The Physical Review*, vol. 166, no. 1, Feb. 5, 1968, pp. 139-41).
- KRIEGLER, R. J., and WELSH, H. L. "The Induced Infrared Fundamental Band of Hydrogen Dissolved in Solid Argon" (*Canadian Journal of Physics*, vol. 46, no. 10, pt. 1, May 15, 1968, pp. 1181-9).
- KUDIAN, A., and WELSH, H. L. "Spectra of H_2 -Ar, H_2 - N_2 , and H_2 -CO van der Waals Complexes" (*Journal of Chemical Physics*, vol. 47, no. 4, Aug. 1967, pp. 1553-4).
- LANG, J. E., and SCOTT, G. D. "Resolution Limits in Multiple Beam Interferometry" (*Journal of the Optical Society of America*, vol. 58, no. 1, Jan. 1968, pp. 81-3).
- LEUNG, C. Y., and PAUL, D. A. L. "A Current-Mode Trigger Pulse Generator for Fast Coincidence Circuits" (*Transactions on Nuclear Science*, vol. NS-15, no. 3, June 1968, pp. 531-5).
- "Positronium Formation and Annihilation in Argon-Propane Mixtures"; in *Positron Annihilation*, ed. A. T. Stewart and L. O. Roellig, pp. 409-416. New York: Academic Press, 1967.
- LIST, R. "On the Modelling of Cumulus Clouds" (*Journal of Atmospheric Sciences*, vol. 25, no. 3, May 1968, pp. 529-30).
- LIST, R., CHARLTON, R. B., and BUTTUS, P. I. "Growth and Feedback Mechanisms of Hailstones in One-dimensional, Steady State Model Clouds"; in *Proceedings of the Severe Local Storms Conference, St. Louis, Missouri, Oct. 19-20, 1967*, pp. 282-6.
- LIST, R., and DUSSAULT, J-G. "Quasi Steady State Icing and Melting Conditions and Heat and Mass Transfer of Spherical and Spheroidal Hailstones" (*Journal of Atmospheric Sciences*, vol. 24, no. 5, Sept. 1967, pp. 522-9).
- LOGAN, R. K., and RAZMI, M. S. K. "Regge Parameters of P and P' from Sum Rules" (*The Physical Review*, vol. 169, no. 5, May 25, 1968, pp. 1167-8).
- "Sum Rules and P + P' Regge Model of πp Scattering" (*Il Nuovo Cimento*, vol. 55, no. 3, series 2, June 1, 1968, pp. 577-80).
- MACINTYRE, R. M., YORK, D., and MOOREHOUSE, W. W. "Potassium-argon Age Determinations in the Madoc-Bancroft Area in the Grenville Province of the Canadian Shield" (*Canadian Journal of Earth Sciences*, vol. 4, no. 5, Oct. 1967, pp. 815-28).
- MCKAGUE ROSEVEAR, A. H., WHITING, G., and ALLIN, E. J. "An Intensity Anomaly in the Raman Spectra of Solid and Liquid Hydrogen and Deuterium" (*Canadian Journal of Physics*, vol. 45, no. 11, Nov. 1967, pp. 3589-91).
- MCNEILL, K. G. "ING: A Good Thing under Certain Conditions" (*Science Forum*, vol. 1, no. 1, Feb. 1968, pp. 10-11).
- MCNEILL, K. G., and HARRISON, J. E. "Body Burdens of Caesium-137 in Toronto in 1964-67" (*Nature*, vol. 216, no. 5122, Dec. 30, 1967, pp. 1340-1).
- MCNEILL, K. G., and HARRIGAN, E. W. "The University of Toronto Linac Accelerator" (*Nuclear Energy*, Nov./Dec. 1967, pp. 154-6).
- MILLER, M. S., and POLL, J. D. "On the Pair Correlation Function for Hard Spheres at Low Density and Temperature" (*Canadian Journal of Physics*, vol. 46, no. 7, April 1, 1968, pp. 879-88).
- MOFFAT, J. W. "Sum Rules, High Energy Theorems and Singular Commutators in the Algebra of Currents"; in *Symmetry Principles and Fundamental Particles*, ed. B. Kursunoglu and A. Perlmutter, pp. 317-49. San Francisco: W. H. Freeman, 1967.
- "S-Wave π -N Scattering Lengths, Current Algebra, and $\rho + \rho'$ Dominance" (*Physical Review Letters*, vol. 20, no. 12, March 18, 1968, pp. 620-3).
- "Theory of Symmetry Violation and Gravitation"; in *Problems in High Energy Physics*, ed. H. H. Aly, pp. 120-36. London: John Wiley & Sons, 1968.
- "Topics in Strong and Weak Interactions"; in *Particle and High Energy Physics*, ed. A. O. Barut, pp. 216-46. New York: Gordon & Breach, 1968.
- MOFFAT, J. W., and O'DONNELL, P. J. "Spectral Function Sum Rules in $SU(3) \times SU(3)$ " (*Canadian Journal of Physics*, vol. 45, no. 8, Aug. 1967, pp. 3901-2).
- PAI, H. L., and MCNEILL, K. G. "Photoproton Yields from the Titanium Isotopes" (*Canadian Journal of Physics*, vol. 45, no. 10, Oct. 1967, pp. 3235-9).
- PAUL, D. A. L., and STANGEBY, P. C. "Data Analysis in Positron Lifetime Measurement"; in

- Positron Annihilation*, ed. A. T. Stewart and L. O. Roellig, pp. 417-19. New York: Academic Press, 1967.
- PRENTICE, J. D. "ING: For Particle Physicists only Indirect Help" (*Science Forum*, vol. 1, no. 1, Feb. 1968, pp. 11-12).
- RAZMI, M. S. K., and UEDA, Y. "High Energy Sum Rule for Kp Scattering" (*The Physical Review*, vol. 162, no. 5, Oct. 25, 1967, pp. 1738-40).
- "Sum Rule Analysis of Kaon-Nucleon Scattering" (*Il Nuovo Cimento*, vol. 52, no. 3, series 10, Dec. 1, 1967, pp. 948-51).
- "Superconvergent Relations in Pion Photoproduction" (*The Physical Review*, vol. 161, no. 5, Sept. 25, 1967, pp. 1655-9).
- SAVAGE, J. C. "Evidence for a Linear Attenuation Mechanism" (*Geophysics*, vol. 32, no. 6, Dec. 1967, pp. 1003-14).
- "Seismic Wave Theory; P and S Waves"; in *International Dictionary of Geophysics*, ed. S. K. Runcorn, pp. 1369-71. London: Pergamon Press, 1967.
- SCHUEPP, P. H., and LIST, R. "The Effect of Surface Roughness and Turbulence on the Heat and Mass Transfer of Hailstones"; in *Proceedings of the Severe Local Storms Conference, St. Louis, Missouri, Oct. 19-20, 1967*, pp. 287-92.
- SHAW, D. E., and WELSH, H. L. "The Raman Spectrum of Ethane-1,1,1-d₃" (*Canadian Journal of Physics*, vol. 45, no. 12, Dec. 1967, pp. 3823-35).
- SHIMIZU, F. "Frequency Broadening in Liquids by a Short Light Pulse" (*Physical Review Letters*, vol. 19, no. 19, Nov. 6, 1967, pp. 1097-100).
- SHIMIZU, F., BACHMANN, U., and STOICHEFF, B. P. "Angular Distribution of Surface Radiation in Stimulated Raman Scattering" (*IEEE, Journal of Quantum Electronics*, vol. QE-4, no. 6, June 1968, pp. 425-6).
- SPEIGHT, P. A., and ARMSTRONG, R. L. "Spin-Lattice Relaxation in Solutions of Electrolytes. I. Relaxation of ⁷Li and ²³Na in Aqueous Solutions in Alkali Halides" (*Canadian Journal of Physics*, vol. 45, no. 8, Aug. 1967, pp. 2493-503).
- STEGEMAN, G. I. A., STOICHEFF, B. P., and PETICOLAS, W. L. "Intensity Ratio of Rayleigh to Brillouin Scattering at the Glass Transition in Polyethyl Methacrylate" (*Physical Review Letters*, vol. 18, no. 25, June 19, 1967, pp. 1130-2).
- TARAS, P., OLEKSIUK, L. W., AZUMA, R. E., and PRENTICE, J. D. "Properties of some Levels of Cl³⁵" (*The Physical Review*, vol. 164, no. 4, Dec. 20, 1967, pp. 1386-96).
- TAYLOR, H. W., NEFF, N., and KING, J. D. "The Decay of 8d ^{106m}Ag" (*Nuclear Physics*, vol. A106, no. 1, Dec. 1967, pp. 49-61).
- TRAINOR, L. E. H., and GUPTA, R. K. "Electron Scattering and the Spectroscopy of Pseudo-Nuclei" (*Nuclear Physics*, vol. A108, no. 2, Feb. 1968, pp. 257-73).
- TREFLER, M., and GUSH, H. P. "Electric Dipole Moment of HD" (*Physical Review Letters*, vol. 20, no. 14, April 1, 1968, pp. 703-5).
- TROJAN, O. A., McNEILL, K. G., and STEENBERG, N. R. "Studies of the Alpha Decay of ²³³U" (*Nuclear Physics*, vol. A100, no. 3, Aug. 1967, pp. 609-18).
- TWARD, E., and ARMSTRONG, R. L. "The Application of an Automated Data Acquisition System to T₁ Measurements in Compressed Hydrogen Gas" (*Canadian Journal of Physics*, vol. 46, no. 5, March 1, 1968, pp. 331-6).
- "Spin-Lattice Relaxation in Dilute Gases. I. Proton Relaxation in HCl, HBr and HI" (*Journal of Chemical Physics*, vol. 47, no. 10, Nov. 15, 1967, pp. 4068-71).
- VAN KRANENDONK, J. "Intercollisional Interference Effects in Pressure-Induced Infrared Spectra" (*Canadian Journal of Physics*, vol. 46, no. 10, pt. 1, May 15, 1968, pp. 1173-9).
- "Localized Lattice Excitations in Solid Hydrogen"; in *Localized Excitations in Solids*, ed. R. F. Wallis, pp. 713-20. New York: Plenum Press, 1968.
- VAN WITZENBURG, W., and STRYLAND, J. C. "Density Measurements of Compressed Solid and Liquid Argon" (*Canadian Journal of Physics*, vol. 46, no. 7, April 1, 1968, pp. 811-16).
- WALKER, M. B. "The Electron Spin-Lattice Relaxation of a Paramagnetic Lattice Defect II" (*Canadian Journal of Physics*, vol. 46, no. 3, Feb. 1, 1968, pp. 161-70).
- "The Electron Spin-Lattice Relaxation of a Paramagnetic Mass Defect" (*The Physical Review*, vol. 162, no. 2, Oct. 10, 1967, pp. 199-208).
- "Nonexistence of Excitonic Insulators in One and Two Dimensions" (*Canadian Journal of Physics*, vol. 46, no. 7, April 1, 1968, pp. 817-21).
- "A T₁ Spin-Lattice Relaxation Rate for Non-Kramers Ions" (*Canadian Journal of Physics*, vol. 46, no. 11, June 1, 1968, pp. 1347-53).
- WATANABE, A., and WELSH, H. L. "Pressure-induced Infrared Absorption of Gaseous Hydrogen and Deuterium at Low Temperatures. II. Analysis of the Band Profiles for Hydrogen" (*Canadian Journal of Physics*, vol. 45, no. 9, Sept. 1967, pp. 2859-71).
- WEST, G. F. "Lake Superior Study"; in *Canadian Upper Mantle Report 1967*, pp. 185-95. Ottawa: Queen's Printer, 1967.
- WHELPDALE, D. M. "Hot-wire and Son Anemometry - a Description and Comparison" (*Atmosphere*, vol. 5, no. 4, fall 1967, pp. 20-7).
- WILSON, J. T. "Continental Drift - A Symposium" (*Geotimes*, vol. 13, no. 2, Feb. 1968, pp. 20-2).
- "The Impact of Science on International Affairs and Social Change"; in *The Role of*

- the University in the Quest for Peace*, pp. 1-7. Oyster Bay, New York: International Studies and World Affairs, 1967.
- "On Studying Humanities in the Light of Science" (*University of Princeton Quarterly*, no. 33, summer 1967, pp. 35-6).
- "Patterns of Growth of Oceans Basins and Continents"; in *Continental Margins and Island Arcs*, ed. W. M. Poole, pp. 388-97. Ottawa: Queen's Printer, 1966.
- "Research upon Research" (*University of Toronto Graduate*, March 1968, pp. 49-53).
- "A Revolution in Earth Science" (*Canadian Mining and Metallurgical Bulletin*, vol. 77, Feb. 1968, pp. 185-92).
- "Rift Valleys and Continental Drift" (*Transactions of the Leicester Literary and Philosophical Society*, vol. 61, 1967, pp. 22-35).
- "Theories of Building Continents"; in *The Earth's Mantle*, ed. T. F. Gaskell, pp. 445-71. London: Academic Press, 1967.
- YORK, D. "The Best Isochron" (*Earth and Planetary Science Letters*, vol. 2, no. 5, Aug. 1967, pp. 479-82).

POLITICAL ECONOMY

- ASHLEY, C. A. "Accountability of Crown Corporations" (*Financial Post*, Feb. 17, 1968, p. 21).
- "The Company of Young Canadians" (*Commerce Journal*, 1968, pp. 15-20).
- Review, *Canadian Forum*, vol. 47, no. 566, March 1968, pp. 286-7.
- BLADEN, V. W. "Innis, Harold Adams"; in *International Encyclopaedia of the Social Sciences*, vol. 7, ed. David L. Sills, pp. 338-9. Toronto: Crowell Collier and Macmillan, 1968.
- "Mill, John Stuart: Economic Contributions" (*ibid.*, vol. 10, pp. 344-8).
- Testimony before the Senate Committee on Science Policy (*Proceedings of the Committee*, no. 4, March 13, 1968, pp. 71-88).
- BOSSONS, J. D. "The Effect of the Carter Proposals and of Alternative Proposals on Stock Prices"; in *Proceedings of the November 1967 Conference*, pp. 132-52. Toronto: Canadian Tax Foundation, 1968.
- *Elements of the Personal Income Tax Base for Different Age/Occupation/Sex Groups*. Study No. 29 for the Royal Commission on Taxation. Ottawa: Queen's Printer, 1968. Pp. 160.
- *A General Income Tax Analyzer*. Study No. 25 for the Royal Commission on Taxation. Ottawa: Queen's Printer, 1967. Pp. 389.
- *Who Benefits and Who Pays: The Incidence of Changes in Direct Taxes on Different Age and Occupation Groups*. Study No. 26 for the Royal Commission on Taxation. Ottawa: Queen's Printer, 1968. Pp. 450.
- BROWN, R. D. "The Family Unit"; in *Report of Proceedings of the Twentieth Tax Conference*, pp. 109-22. Toronto: Canadian Tax Foundation, November 1967.
- CAMPBELL, D. R. "The Changing World Food Situation" (*Canadian Forum*, vol. 47, no. 558, July, 1967, pp. 77-8).
- "Jordan: The Economics of Survival" (*International Journal*, vol. 23, no. 1, winter 1967-8, pp. 109-23).
- "The Middle North"; in *Report on the Middle North, 1968*, Appendix IV. Montreal: The Arctic Institute of North America, 1968. Pp. 14.
- Reviews, *Canadian Journal of Agricultural Economics*, vol. 15, no. 1, summer 1967, pp. 142-5; *Canadian Journal of Economics and Political Science*, vol. 33, no. 3, Aug. 1967, pp. 473-4; *International Journal*, vol. 23, no. 1, winter 1967-8, pp. 161-2; 175-6.
- CLARKSON, S. H. E. "An Alternative Foreign Policy for Canada"; in *Canada and Its Future*, ed. Rev. Ray Hord, pp. 142-9. Toronto: The United Church Publishing House, 1967.
- "The Choice to be Made"; in *An Independent Foreign Policy for Canada?* ed. Stephen Clarkson, pp. 253-69. Toronto: McClelland & Stewart, 1968.
- "Clashing Ideologies and Warring Nations"; in *Peace, Power and Protest*, ed. Donald Evans, pp. 115-32. Toronto: Ryerson Press, 1967.
- "The Foreign Policies of the United States and Canada: Western Europe" (*Writings on Canadian-American Studies*, vol. 2, 1967, pp. 49-52).
- (ed.) *An Independent Foreign Policy for Canada?* Toronto: McClelland & Stewart, 1968. Pp. 290.
- "Peaceful Coexistence: Gaullist Style" (*Current History*, vol. 54, no. 319, March 1968, pp. 160-5, 178).
- *The Politics of Economic Dependence* (a study for the Task Force on the Structure of Canadian Industry). Ottawa: Queen's Printer, 1967. Pp. 61 (mimeo).
- Reviews, *International Journal*, vol. 23, no. 1, winter 1968, pp. 143-4; *Problems of Communism*, vol. 17, no. 3, May-June 1968, p. 65.
- CURRIE, A. W. *Canadian Transportation Economics*. Toronto: University of Toronto Press, 1967. Pp. 719.
- "Some Eighteenth Century Observations on Nova Scotia" (*Dalhousie Review*, vol. 47, no. 4, winter 1967-68, pp. 567-76).

- DALES, J. H. "Business History and Economic Theory"; in *Proceedings of the 14th Annual Meeting of the Business History Conference*, pp. 34-8. London, Ont., 1967.
- "Canadian Scholarship in Economics"; in *Scholarship in Canada*, 1967, ed. R. H. Hubbard, pp. 82-93. Toronto: Royal Society of Canada, 1968.
- "Free Trade under Scrutiny" (*The Montreal Star*, Oct. 1, 1967, p. 9).
- "A Further Comment on Economic Integration" (*Journal of Canadian Studies*, vol. 2, no. 3, Aug. 1967, pp. 36-9).
- "Usher, Abbott P."; in *International Encyclopaedia of the Social Sciences*, ed. David L. Sills, vol. 16, pp. 221-4. Toronto: Crowell Collier and Macmillan, 1968.
- DALES, J. H., and WATKINS, M. H. (with McManus, J. C.) "Primary Products and Economic Growth: A Comment" (*Journal of Political Economy*, vol. 75, no. 6, Dec. 1967, pp. 876-80).
- DRUMMOND, I. M. "Labour Markets and Educational Planning"; in *The Canadian Labour Market*, ed. A. Kruger and N. Meltz, pp. 243-96. Toronto: Centre for Industrial Relations, University of Toronto, 1968.
- "Labor Scarcity and the Problem of American Industrial Efficiency in the 1950's: A Comment" (*Journal of Economic History*, vol. 27, no. 3, Sept. 1967, pp. 383-91).
- Review, *American Economic Review*, vol. 58, no. 1, March 1968, pp. 279-80.
- EASTMAN, H. C. *The Economic Council's 3rd Annual Review - An Evaluation*. Montreal: Private Planning Association of Canada, 1967. Pp. 32.
- "Yes, Mr. Johnson, a Simple Remedy to your Foreign Exchange Problems Does Exist" (*Canadian Forum*, vol. 47, no. 565, Feb. 1968, p. 245).
- Review, *Canadian Journal of Economics*, vol. 1, no. 2, May 1968, pp. 491-3.
- EASTMAN, H. C. (with Stykolt, S.) *The Tariff and Competition in Canada*. Toronto: Macmillan, 1967. Pp. xvi, 400.
- FOX, P. W. "The Liberals Choose Trudeau - Pragmatism at Work" (*Canadian Forum*, vol. 48, no. 568, May 1968, pp. 27-8).
- "Les partis politiques fédéraux"; in *Le système politique du Canada: institutions fédérales et québécoises*, ed. L. Sabourin, pp. 197-209. Ottawa: Editions de l'Université d'Ottawa, 1968.
- Reviews, *Commentator*, December 1967, p. 20; *Executive Magazine*, vol. 9, no. 10, Oct. 1967, p. 38; *Globe & Mail Magazine*, Feb. 10, 1968, pp. 18, 23; *Toronto Daily Star*, Feb. 10, 1968, p. 37; March 9, 1968, p. 27; March 30, 1968, p. 27; May 11, 1968, p. 37.
- GREEN, H. A. J. "Uncertainty and the 'Expectations Hypothesis'" (*Review of Economic Studies*, vol. 34, no. 4, Oct. 1967, pp. 387-98).
- Review, *Canadian Journal of Economics and Political Science*, vol. 33, no. 4, Nov. 1967, pp. 629-31.
- GREGOR, R. "Lenin, Revolution, and Foreign Policy" (*International Journal*, vol. 22, no. 4, autumn 1967, pp. 563-75).
- "Soviet Foreign Policy" (*EMO National Digest*, vol. 8, no. 1, Feb. 1968, pp. 8-11).
- GRIFFITHS, F. J. C. "Inner Tensions in the Soviet Approach to Disarmament" (*International Journal*, vol. 22, no. 4, autumn 1967, pp. 593-617).
- "Opening up the Policy Process"; in *An Independent Foreign Policy for Canada?* ed. S. H. E. Clarkson, pp. 110-18. Toronto: McClelland & Stewart, 1967.
- HAQUE, W. "Intertemporal Optimality and von Neumann Equilibrium in Non-Linear Activity Analysis: Further Notes and a Comment on Causal Indeterminacy in Non-Linear Leontiev Systems" (*Metroeconomica*, no. 1, 1968).
- HARTLE, D. G. "What Is the Likely Impact of New Policies in Taxation?"; in *Proceedings, National Conference on the Economics of Canadian Unity*, ed. G. R. S. Hawkins, pp. 131-47. Banff: School of Advanced Management, 1968.
- HELLEINER, G. K. "Agricultural Export Pricing Strategy in Tanzania" (*East African Journal of Rural Development*, vol. 1, no. 1, Jan. 1968, pp. 1-17).
- "East African Community: Approaching the E.E.C." (*Africa Report*, vol. 13, no. 4, April 1968, pp. 37-42).
- Reviews, *Canadian Journal of Economics*, vol. 1, no. 2, May 1968, pp. 485-7; *International Journal*, vol. 23, no. 1, winter 1967-68, pp. 179-80.
- HOLLANDER, S. "The Analysis of the Labour Market in Classical Economics"; in *The Canadian Labour Market: Readings in Manpower Economics*, ed. A. Kruger and N. M. Meltz, pp. 55-120. Toronto: Centre for Industrial Relations, University of Toronto, 1968.
- "The Role of the State in Vocational Training: The Classical Economists' View" (*Southern Economic Journal*, vol. 34, no. 4, April 1968, pp. 513-35).
- Review, *Mill News Letter*, vol. 2, no. 2, spring 1967, pp. 16-17.
- HOROWITZ, G. *Canadian Labour in Politics*. Toronto: University of Toronto Press, 1968. Pp. 250.
- "Conservatism, Liberalism and Socialism in Canada: An Interpretation"; in *Party Politics in Canada*, ed. H. G. Thorburn, pp. 55-73. Toronto: Prentice Hall, 1967.
- "Le Québec dans le Canada de demain" (*Editions du Jour*, vol. 1, Nov. 1967, pp. 88-94).
- "Le Statut Particulier, formule libératrice pour les deux communautés" (*Le Devoir*, June 30, 1967).

- "Trudeau vs. Trudeauism" (*Canadian Forum*, vol. 48, no. 568, May 1968, pp. 29–30).
- JUDY, R. W. "The Soviet Economy: From Commissars to Computers" (*International Journal*, vol. 22, no. 4, autumn 1967, pp. 632–46).
- KEIRSTEAD, B. S. "Moral Issues in Economic Development"; in *Science, Philosophy and Culture*, ed. K. Murthy, pp. 141–50. Calcutta: Asia Publishing House, 1968.
- "Profit"; in *International Encyclopaedia of the Social Sciences*, ed. International Editorial Board, vol. XII, pp. 547–52. New York: McGraw-Hill, 1968.
- KOTOWITZ, Y. "On the Estimation of a Non-Neutral CES Production Function" (*Canadian Journal of Economics*, vol. 1, no. 2, May 1968, pp. 429–39).
- "Technological Progress and Labour Displacement"; in *The Canadian Labour Market*, ed. A. Kruger and N. M. Meltz, pp. 121–34. Toronto: Centre for Industrial Relations, University of Toronto, 1968.
- KOTOWITZ, Y., and CHOUDHRY, N. K. "Some Simple Economic-Demographic Relationships – The Canadian Experience"; in *Proceedings of World Population Conference*, pp. 4–8. New York: United Nations, 1967.
- KRUGER, A. "Micro-Economic Theory, Labour Allocation and Manpower Policy"; in *The Canadian Labour Market*, ed. A. Kruger and N. M. Meltz, pp. 1–54. Toronto: Centre for Industrial Relations, University of Toronto, 1968.
- "A Policy for Canada: Discussion"; in *Wages, Prices, Profits and Economic Policy*, ed. J. H. Crispo, pp. 140–5. Toronto: University of Toronto Press, 1968.
- KRUGER, A., and MELTZ, N. M. (eds.) *The Canadian Labour Market: Readings in Manpower Economics*. Toronto: Centre for Industrial Relations, University of Toronto, 1968. Pp. 312.
- LAKOFF, S. A. Reviews. *Administrative Science Quarterly*, vol. 12, no. 5, June 1968, pp. 171–7; *Harvard Educational Review*, vol. 37, no. 4, fall 1967, pp. 659–64.
- MCPHERSON, C. B. "Democratic Theory: Ontology and Technology"; in *Political Theory and Social Change*, ed. David Spitz, pp. 203–20. New York: Atherton Press, 1967.
- "Elegant Tombstones: A Note on Friedman's Freedom" (*Canadian Journal of Political Science*, vol. 1, no. 1, March 1968, pp. 95–106).
- "The Maximization of Democracy"; in *Philosophy, Politics and Society, Third Series*, ed. Peter Laslett and W. G. Runciman, pp. 83–103. Oxford: Blackwell, 1967.
- "Natural Rights in Hobbes and Locke"; in *Political Theory and the Rights of Man*, ed. D. D. Raphael, pp. 1–15. London: Macmillan, 1967.
- *Drei Formen der Demokratie* (trans. of *The Real World of Democracy*, Toronto: CBC, 1965; Oxford: Clarendon, 1966). Frankfurt a/Main: Europäische Verlagsanstalt, 1967 (res novae #61). Pp. 97. Also Japanese translation of the above. Tokyo: Iwanami Shoten, 1967. Pp. 180.
- *Die Politische Theorie des Besitzindividualismus* (trans. of *The Political Theory of Possessive Individualism*, Oxford: Clarendon Press, 1962). Frankfurt a/Main: Suhrkamp Verlag, 1967. Pp. 346.
- Reviews, *The Listener*, vol. 78, no. 2009, Sept. 28, 1967, pp. 399–400; vol. 79, no. 2024, Jan. 11, 1968, pp. 53–4; *New Statesman*, vol. 74, no. 1912, Nov. 3, 1967, p. 591.
- MANZER, R. A. Review, *Canadian Journal of Economics and Political Science*, vol. 33, no. 4, Nov. 1967, pp. 627–8.
- MELTZ, N. M. "Discussion"; in *Proceedings of the 20th Annual Winter Meeting*, ed. G. C. Somers, pp. 385–90. Washington: Industrial Relations Research Association, 1968.
- "Labour Market Information and Analysis in Canada"; in *The Canadian Labour Market*, ed. A. Kruger and N. M. Meltz, pp. 221–42. Toronto: Centre for Industrial Relations, University of Toronto, 1968.
- *Study of Labour Market Information Systems – Final Report*. Ottawa: Department of Manpower and Immigration, 1968. Pp. iv, 211.
- NEUFELD, E. P. "A Policy for Canada: Discussion"; in *Wages, Prices, Profits and Economic Policy*, ed. J. H. G. Crispo, Proceedings of a Conference held by the Centre for Industrial Relations, University of Toronto, 1967, pp. 127–31. Toronto: University of Toronto Press, 1968.
- "The Relative Growth of Commercial Banks"; in *Essays in Money and Banking in Honour of R. S. Sayers*, ed. C. R. Whittlesey and J. S. G. Wilson, pp. 130–50. Oxford: Clarendon Press, 1968.
- PRATT, R. C. "On Academic Freedom in Africa" (*Minerva*, vol. 5, no. 4, summer 1967, pp. 574–5).
- "Towards Justice in Rhodesia"; in *An Independent Foreign Policy for Canada?* ed. S. H. E. Clarkson, pp. 212–25. Toronto: McClelland & Stewart, 1968.
- "University and State in Independent Africa Today"; in *The Inaugural Lectures of the University of Zambia*, ed. the Institute for Social Research, Zambian Papers no. 2, pp. 22–30. Manchester: Manchester University Press, 1967.
- ROSTEIN, A. "Budushay Ekonomicheskavo Sosushestvovanya" ("The Future of Economic Coexistence") (*Vestnik (Ekonomika) Moshovskava Universiteta*, no. 6, Dec. 1967, pp. 72–8).
- "Constitution without Tiers?" (*Canadian Forum*, vol. 47, no. 566, March 1968, pp. 266–8).
- "Retaliation and Independence"; in *An Independent Foreign Policy for Canada?* ed. Stephen Clarkson, pp. 53–6. Toronto: McClelland & Stewart, 1968.

- ROSTEIN, A., WATKINS, M. H., SAFARIAN, A. E., *et al.* *Foreign Ownership and the Structure of Canadian Industry*. Ottawa: Queen's Printer, 1968. Pp. 427.
- RUSSELL, P. H. Review, *Canadian Historical Review*, vol. 49, no. 1, March 1968, pp. 66-8.
- SAFARIAN, A. E. "Approaches to Foreign Ownership" (*Commerce Man* [Queen's University], vol. 23, 1968, pp. 13-19).
- "Country of Ownership and Performance of the Firm" (*Economic Record*, vol. 44, no. 105, March 1968, pp. 82-96).
- "The Multi-National Corporation and the Communication of Values" (*Explorations*, no. 22, June 1968, pp. 75-80).
- SAFARIAN, A. E., *et al.* "Retaliation: The Price of Independence?"; in *An Independent Foreign Policy for Canada?* ed. S. H. E. Clarkson, pp. 48-51. Toronto: McClelland & Stewart, 1968.
- SKILLING, H. G. "Albania", "Bulgaria", "Communism", "Czechoslovakia", "Hungary", "Poland", "Rumania", "Russia", "Yugoslavia"; in *The 1968 Year Book*, pp. 202, 244, 273-4, 289-90, 365, 459-60, 481-2, 482-5, 540-41. Chicago, 1968.
- "Background to the Study of Opposition in Communist East Europe" (*Government and Opposition*, vol. 3, no. 3, summer 1968, pp. 294-324).
- "Crisis and Change in Czechoslovakia" (*International Journal*, vol. 23, no. 2, summer 1968, pp. 456-65).
- "The Party, Opposition and Interest Groups: Fifty Years of Continuity and Change" (*International Journal*, vol. 22, no. 4, autumn 1967, pp. 618-31).
- SMITH, J. E. "Kennedy and Defence: The Formative Years" (*Queen's Quarterly*, vol. 74, no. 4, winter 1968, pp. 402-24).
- "The Red Prussianism of the German Democratic Republic" (*Political Science Quarterly*, vol. 82, no. 3, Sept. 1967, pp. 368-85).
- SMITH, L. B. "Financial Intermediary Lending Behaviour in the Postwar Canadian Mortgage Market" (*Quarterly Journal of Economics*, vol. 81, Aug. 1967, pp. 393-514).
- "On the Economic Implications of the Yield Ceiling on Government Insured Mortgages" (*Canadian Journal of Economics and Political Science*, vol. 33, no. 3, Aug. 1967, pp. 420-31).
- "Recent Canadian Economic Growth and the Role of Government" (*Journal of Canadian Studies*, vol. 3, no. 1, Feb. 1968, pp. 45-50).
- Reviews, *Canadian Journal of Economics and Political Science*, vol. 33, no. 3, Aug. 1967, pp. 466-8; no. 4, Nov. 1967, pp. 634-5.
- SMYTH, J. E. "The Social Implications of Incorporation"; in *Studies on Canadian Company Law*, ed. J. S. Ziegel, pp. 651-70. Toronto: Butterworth, 1967.
- STAGER, D. A. A. "Measuring the Output of Educational Institutions"; in *The Canadian Labour Market*, ed. A. Kruger and N. M. Meltz, pp. 297-312. Toronto: Centre for Industrial Relations, University of Toronto, 1968.
- TRIANTIS, S. G. *Common Market and Economic Development: Greece and the E.E.C.* (in Greek). Athens: Center of Planning and Economic Research, 1967. Pp. 256.
- *Cyclical Changes in Trade Balances of Countries Exporting Primary Products 1927-1933—A Comparative Study of Forty-Nine Countries*. Toronto: University of Toronto Press, 1967. Pp. 200.
- "Population, Emigration and Economic Development"; in *Proceedings of the World Population Conference, Belgrade, 1965, Vol. IV: Selected Papers and Summaries, Migration, Urbanization, Economic Development*, pp. 244-8. New York: United Nations, Department of Economic and Social Affairs, 1967.
- WALLACE, E. Review, *Canadian Forum*, vol. 48, no. 569, June 1968, pp. 68-9; *International Journal*, vol. 22, no. 4, autumn 1967, pp. 743-4; vol. 23, no. 1, winter 1967-68, pp. 154-5; 182-3.
- WATKINS, M. H. "Canadian American Economic Relations" (*South Atlantic Quarterly*, vol. 66, no. 3, summer 1967, pp. 382-94).
- "Evidence, House of Commons, Standing Committee on Finance, Trade and Economic Affairs" (*Minutes of Proceedings and Evidence respecting Report of the Task Force on the Structure of Canadian Industry*, nos. 27 and 28, March 1968, pp. 751-96).
- "One Country" (*Canadian High News*, Your Canada Series, no. 28, 1968).
- WATKINS, M. H. (with Hymer, S. H.) "The Radical Centre: Carter Reconsidered" (*Canadian Forum*, vol. 48, no. 569, June 1968, pp. 52-4).
- WATSON, A. M. "Oro e Argento nel Tardo Medio Evo" (*Mercurio*, vol. 10, no. 10, Oct. 1967, pp. 11-17).
- WILSON, T. A. *Capital Investment and the Cost of Capital: A Dynamic Analysis*, Study no. 30, Royal Commission on Taxation. Ottawa: Queen's Printer, 1967. Pp. 127.
- WILSON, T. A. (with Comanor, W. S.) "Advertising Market Structure and Performance" (*Review of Economics and Statistics*, vol. 49, no. 4, Nov. 1967, pp. 423-40).
- WILSON, T. A. (with Eckstein, O.) Reply to a Comment on "Money Wage Determination in American Industry" (*Quarterly Journal of Economics*, vol. 81, no. 4, Nov. 1967, pp. 690-4).
- WILSON, T. A. (with Lithwick, N. H.) *The Sources of Economic Growth*, Study no. 24, Royal Commission on Taxation. Ottawa: Queen's Printer, 1968. Pp. 260.
- WINDER, J. W. L. "Structural Unemployment"; in *The Canadian Labour Market*, ed.

- A. Kruger and N. M. Meltz, pp. 135-220. Toronto: Centre for Industrial Relations, University of Toronto, 1968.
- WYMAN, K. L. "Canada"; in *The Annual Register of World Events 1967*, ed. I. Macadam *et al.*, pp. 60-6. London: Longmans, Green, 1967.
- "The Task Force Report on Foreign Ownership" (*Canadian Dimension*, vol. 5, no. 4, April-May 1968, pp. 15-16).
- Review, *Canadian Forum*, vol. 48, no. 569, June 1968, p. 66.

PSYCHOLOGY

- AMSEL, A. "Secondary Reinforcement and Frustration" (*Psychological Bulletin*, vol. 69, no. 4, April 1968, p. 278).
- BERLYNE, D. E. "American and European Psychology" (*American Psychologist*, vol. 23, no. 6, June 1968, pp. 447-52).
- "Arousal and Reinforcement"; in *Nebraska Symposium on Motivation, 1967*, ed. D. Levine, pp. 1-110. Lincoln, Nebraska: University of Nebraska Press, 1967.
- "Can and Should Learning be Accelerated?"; in *Accelerated Learning and Fostering Creativity*, ed. D. W. Brison, pp. 109-121. Toronto: Ontario Institute for Studies in Education, 1968.
- "Drive and Arousal" (*Neurosciences Research Programme Bulletin*, vol. 6, no. 1, May 1968, pp. 23-7).
- BERLYNE, D. E., and PARHAM, L. C. C. "Determinants of Subjective Novelty" (*Perception and Psychophysics*, vol. 3, no. 6, June 1968, pp. 415-423).
- BERLYNE, D. E., McDONNELL, P., NICKI, R. M., and PARHAM, L. "Effects of Auditory Pitch and Complexity on EEG Desynchronization and on Verbally Expressed Judgments" (*Canadian Journal of Psychology*, vol. 21, no. 4, Aug. 1967, pp. 346-67).
- BERLYNE, D. E., and BORSA, D. M. "Uncertainty and the Orientation Reaction" (*Perception and Psychophysics*, vol. 3, no. 1B, Jan. 1968, pp. 77-8).
- BIEDERMAN, G. B. "Discriminated Avoidance Conditioning as a Function of Intertrial Interval and Type of Shock" (*Psychonomic Science*, vol. 9, no. 3, Sept. 1967, pp. 155-6).
- "Discriminated Avoidance Conditioning: CS Function during Avoidance Acquisition and Maintenance" (*Psychonomic Science*, vol. 10, no. 1, Jan. 1968, pp. 23-4).
- "Discriminated Avoidance Conditioning: Stimulus Function in Shaping and Training" (vol. 9, no. 5, Oct. 1967, pp. 263-4).
- "Overlearning Reversal Effect and the Negativity of S- : Reply" (*Psychonomic Science*, vol. 9, no. 1, Sept. 1967, p. 68).
- "Stimulus Control in Errorless Discrimination" (*Psychonomic Science*, vol. 9, no. 7A, Nov. 1967, pp. 375-6).
- "Stimulus Control in Errorless Discrimination: Reply" (*Psychonomic Science*, vol. 11, no. 9, 1968, p. 328).
- "Stimulus Function in Simultaneous Discrimination" (*Journal of Experimental Analysis of Behavior*, vol. 11, no. 4, 1968, pp. 459-63).
- CREELMAN, C. D. "Empirical Detectability Scales without the JND" (*Perceptual and Motor Skills*, vol. 24, no. 3, June 1967, pp. 1079-1084).
- FOLEY, J. E. "A Further Study of Alternation of Normal and Distorted Vision" (*Psychonomic Science*, vol. 9, no. 8, Nov. 1967, pp. 483-4).
- FUREDY, J. J. "Aspects of Reinforcement through UCS Offset in Classical Aversive Conditioning" (*Australian Journal of Psychology*, vol. 19, no. 2, Aug. 1967, pp. 159-68).
- "Classical Appetitive Conditioning of the GSR with Cool Air as UCS, and the Roles of UCS Onset and Offset as Reinforcers of the CR" (*Journal of Experimental Psychology*, vol. 75, no. 1, Sept. 1967, pp. 73-80).
- "The Human Orienting Reaction as a Function of Electrodermal versus Plethysmographic Response Modes and Single versus Alternating Stimulus Series" (*Journal of Experimental Psychology*, vol. 77, no. 1, May 1968, pp. 70-8).
- "Novelty and the Measurement of the GSR" (*Journal of Experimental Psychology*, vol. 76, no. 4, April 1968, pp. 501-3).
- FUREDY, J. J., *et al.* "Satiation and Exploration in Instrumental Reward Learning" (*Australian Journal of Psychology*, vol. 19, no. 3, Dec. 1967, pp. 217-21).
- GRUSEC, J. E. "Waiting for Rewards and Punishments: Effects of Reinforcement Value on Choice" (*Journal of Personality and Social Psychology*, vol. 9, no. 1, May 1968, pp. 85-9).
- GRUSEC, T. "The Peak Shift in Stimulus Generalization: Equivalent Effects of Errors and Noncontingent Shock" (*Journal of the Experimental Analysis of Behavior*, vol. 11, no. 3, May 1968, pp. 239-49).
- HOGAN, J. A. "Fighting and Reinforcement in the Siamese Fighting Fish (*Betta Splendens*)" (*Journal of Comparative and Physiological Psychology*, vol. 64, no. 2, Oct. 1967, pp. 356-9).
- HOGAN, J. A. (with Kruijt, J. P.) "Social Behavior on the Lek in Black Grouse, *Lyrurus Tetrix Tetrix* (L.)" (*Ardea*, vol. 55, no. 3/4, 1967, pp. 203-40).
- KROGER, R. O. "Conceptual and Empirical Independence in Test Validation: A Note on Campbell and Fiske's 'Discriminant Validity'" (*Educational and Psychological Measurement*, vol. 28, no. 2, summer 1968, pp. 383-7).

- LAURENCE, M. "Memory Loss with Age: A Test of Two Strategies for its Retardation" (*Psychonomic Science*, vol. 9, no. 4, Oct. 1967, pp. 209-10).
- MACDONALD, G. E. (with Strobel, M. G. and Baker, D. G.) "The Effect of Embryonic X-Irradiation on the Approach and Following Response in Newly Hatched Chicks" (*Canadian Journal of Psychology*, vol. 21, no. 4, Aug. 1967, pp. 322-8).
- MACDONALD, G. E. "Imprinting: Drug-Produced Isolation and the Sensitive Period" (*Nature*, vol. 217, no. 5134, March 1968, pp. 1158-9).
- MACDONALD, G. E. (with Strobel, M. G., and Clark, G. M.) "Ontogeny of the Approach Response: A Radiosensitive Period during Embryological Development of Domestic Chicks" (*Journal of Comparative and Physiological Psychology*, vol. 65, no. 2, April 1968, pp. 314-19).
- MURDOCK, B. B. "The Effects of Noise and Delayed Auditory Feedback on Short-Term Memory" (*Journal of Verbal Learning and Verbal Behavior*, vol. 6, no. 5, Oct. 1967, pp. 737-43).
- "Modality Effects in Short-Term Memory: Storage or Retrieval?" (*Journal of Experimental Psychology*, vol. 77, no. 1, May 1968, pp. 79-86).
- "Recent Developments in Short-Term Memory" (*British Journal of Psychology*, vol. 58, no. 3 and 4, Dec. 1967, pp. 421-33).
- "Response Latencies in Short-Term Memory" (*Quarterly Journal of Experimental Psychology*, vol. 20, no. 1, Feb. 1968, pp. 79-82).
- "Serial Order Effects in Short-Term Memory" (*Journal of Experimental Psychology*, vol. 76, no. 4, April 1968, pp. 1-15).
- "Theoretical Note: A Fixed-Point Model for Short-Term Memory" (*Journal of Mathematical Psychology*, vol. 4, no. 3, Oct. 1967, pp. 501-6).
- MURDOCK, B. B. (with Donaldson, W.) "Criterion Change in Continuous Recognition Memory" (*Journal of Experimental Psychology*, vol. 76, no. 3, March 1968, pp. 325-30).
- MYERS, C. R. "Departments of Psychology in Canada - 1967" (*Canadian Psychologist*, vol. 9, no. 1, Jan. 1968, pp. 42-45).
- Ogilvie, J. C. (with Daicar, E.) "The Perception of Curvature" (*Canadian Journal of Psychology*, vol. 2, no. 3, Dec. 1967, pp. 521-5).
- PRESTON, J. M. and GARDNER, R. C. "Dimensions of Oral and Written Language Fluency" (*Journal of Verbal Learning and Verbal Behaviour*, vol. 6, no. 6, Dec. 1967, pp. 936-45).
- RASHOTTE, M. E., ROSS, M., and AMSEL, A. "Generalization of the Partial Reinforcement Effect" (*Psychonomic Science*, vol. 11, no. 5, June 1968, pp. 173-4).
- SCHIFF, B. B. "Effects of Tegmental Lesions on the Rewarding Properties of Stimulation" (*Journal of Comparative and Physiological Psychology*, vol. 64, no. 1, Aug. 1967, pp. 16-21).
- SPIGEL, I. M., and ELLIS, K. R. "D-Amphetamine and Climbing Suppression in the Turtle" (*Psychological Reports*, vol. 20, July 1967, pp. 1257-8).
- "Electrolyte Balance and Deficit Drinking in a Reptile" (*Journal of Comparative and Physiological Psychology*, vol. 65, no. 3, July 1968, pp. 384-7).
- "Electrolyte Balance and Drinking in the Fresh Water Turtle" (*Journal of Comparative and Physiological Psychology*, vol. 64, no. 2, Oct. 1967, pp. 313-17).
- "Excretory Electrolytes and Habituation in the Turtle" (*Psychonomic Science*, vol. 8, no. 9, July 1967, pp. 381-2).
- SURRIDGE, C. T., and AMSEL, A. "Confinement Duration on Rewarded and Nonrewarded Trials and Patterning at 24-Hour ITI" (*Psychonomic Science*, vol. 10, no. 3, Jan. 1968, pp. 107-8).
- TULVING, E. "Theoretical Issues in Free Recall"; in *Verbal Behavior and General Behavior Theory*, ed. T. R. Dixon and D. L. Horton, pp. 2-36. Englewood Cliffs: Prentice-Hall, 1968.
- "When is Recall Higher than Recognition?" (*Psychonomic Science*, vol. 10, no. 2, Jan. 1968, pp. 53-4).
- TULVING, E., and PATTERSON, R. D. "Functional Units and Retrieval Processes in Free Recall" (*Journal of Experimental Psychology*, vol. 77, no. 2, June 1968, pp. 239-49).
- WALTERS, G. C., and COOPER, P. D. "An Alicyclic Analogue of Mescaline" (*Nature*, vol. 218, no. 5138, April 1968, p. 298).
- WALTERS, G. C., and TULLIS, C. "Punished and Unpunished Responding in Multiple Variable-Interval Schedules" (*Journal of the Experimental Analysis of Behavior*, vol. 11, no. 2, March 1968, pp. 147-52).
- "Recording of Skin Resistance in the Unrestrained Rat: A Possible Measurement Artifact" (*Psychonomic Science*, vol. 9, no. 1, Sept. 1967, pp. 27-28).
- WOODWARD, A. E., and MURDOCK, B. B. "Positional and Sequential Probes in Serial Learning" (*Canadian Journal of Psychology*, vol. 22, no. 2, April 1968, pp. 131-8).

SLAVIC LANGUAGES AND LITERATURES

- BUDUROWYCZ, B. "Michael Hrushevsky in the Appraisal of West European and American Historians" (*Vyzvol'nyy Shlyakh*, London, vol. 20, no. 2, 1967, pp. 171-81).
- Review, *Ukrayins'ke Zhyttya*, Chicago, Dec. 24, 1967.
- FEUER, K. B. Review, *New York Times Book Review*, vol. 116, no. 40,097, Nov. 5, 1967, p. 6.

- HUNTLEY, D. G. "L'aspect de *iti* en vieux slave" (*Revue des études slaves*, vol. 46, 1967, pp. 15-21).
- LUCKYJ, G. S. N. "Nevidome opovidannya Babelya pro kolektyvizatsiyu na Ukraini" (*Suchasnist'*, Munich, no. 8, 1967, pp. 122-3).
- MARSHALL, R. H., Jr. Reviews, *Catholic Messenger*, Aug. 10, 1967; *Catholic World*, vol. 205, no. 1, 228, July 1967.
- PONOMAREFF, C. V. "Death and Decay: An Analysis of S. A. Esenin's Poetic Form" (*Canadian Slavonic Papers*, vol. 10, no. 2, pp. 180-209).
- STRUK, D. "Bibliography of Ukrainian Literature" (*Canadian Slavic Studies*, vol. 1, 1967, no. 2, 3, 4; vol. 2, 1968, no. 1).
- "Diyaloh z nym" (*Plastovyy Shlyakh*, no. 1 (12), 1967, pp. 45-50).
- "Kaniyana samota u misyachnim syayvi" (*Smoloskyb*, vol. 19, no. 1 (122), 1967, pp. 4-7).
- "Novi poeziyi" (*Smoloskyb*, vol. 19, no. 2 (123), 1967, pp. 7-9).
- "Persha lyubov" (*Smoloskyb*, vol. 20, no. 1 (128), 1968, p. 9).
- "Plast u 2,000-Omu rotsi" (*Plastovyy shlyakh*, no. 1 (16), 1968, pp. 12-16).
- "Predtecha ukrayins'koho romantyzmu" (*Suchasnist'*, no. 4 (76), April 1967, pp. 121-3).
- "Pytannya perekladnoyi literatury" (*Smoloskyb*, vol. 19, no. 3 (124), 1967, pp. 11-13).
- "Rozмова z tomom Khvyly'ovoho" (*Smoloskyb*, vol. 19, no. 4 (125), 1967, pp. 12-13).
- "Rym" (*Pivnichne syayvo*, vol. 3, 1967, p. 131).
- "Tupyk or Blind-Alley: *Val'dshnepy* of M. Khvyly'ovyy" (*Canadian Slavic Studies*, vol. 2, no. 2, summer 1968).
- "Ukrayina chy bat'kivshchyna" (*Plastovyy shlyakh*, no. 4 (15), 1967, pp. 36-9).
- "Vershyvannya—virshuvannya" (*Smoloskyb*, vol. 19, no. 5 (126), 1967, pp. 7-8).
- Review, *Smoloskyb*, vol. 20, no. 1 (128), p. 9.
- STRUVE, G. Introductory article (in English) to *Sochineniia (Works)*, by A. Akhmatova, 2nd ed. revised and enlarged, pp. 5-18. Inter-Language Literary Associates, 1968.
- Notes and Commentary to *Sobranie sochinenii (Collected Works)* by N. Gumilev, vol. 4, pp. 529-654. Washington, D.C.: V. P. Kamkin, 1968.
- "Notes on Nabokov as a Russian Writer"; in *Nabokov the Man and His Work*, ed. L. S. Dembo, pp. 45-56. University of Wisconsin Press, 1967.
- "The Re-Emergence of Mikhail Bulgakov" (*The Russian Review*, vol. 27, no. 3, July 1968, pp. 338-43).
- "The Writers"; in *1917-1967: Promise and Realization*. Part IV: Society and Culture. *Studies on the Soviet Union*, vol. 7, no. 2, pp. 158-70. Munich: Institute for the Study of the USSR, 1967.
- Review, *Slavic Review*, vol. 17, no. 2, June 1968, pp. 352-3.
- STRUVE, G. (with Filippov, B.) (eds.) *Sobranie sochinenii (Collected Works)*, vol. 4, by N. Gumilev. Washington, D.C.: V. P. Kamkin, 1968. Pp. xxxvi, 656.
- Sochineniia (Works)*, by A. Akhmatova, 2nd ed. revised and enlarged. Inter-Language Literary Associates. Vol. I. 1968. Pp. 480.
- STRUVE, G. (with Hughes, O. R., and Hughes, R. P.) (eds.) *A Century of Russian Prose and Verse: From Pushkin to Nabokov*. New York: Harcourt Brace and World Inc., 1967. Pp. vi, 217.

SOCIOLOGY

- BAUM, R. C. "Values and Democracy in Imperial Germany" (*Sociological Inquiry*, vol. 38, no. 2, spring 1968, pp. 179-96).
- BELL, N. W. "Models and Methods in Social Psychiatry"; in *Social Psychiatry*, ed. J. Zubin and F. A. Freyhan, pp. 252-79. New York: Grune and Stratton, 1968.
- BELL, N. W. (with Vogel, E. F.) *A Modern Introduction to the Family* (revised ed.) New York: Free Press, 1968. Pp. xi, 758.
- CLARK, S. D. "Higher Education and the New Men of Power in Society" (*Journal of Educational Thought*, vol. 1, no. 2, Aug. 1967, pp. 77-87).
- Review, *American Sociological Review*, vol. 33, no. 3, June 1968, pp. 477-8.
- CURRIE, I. D. (with Finney, H. C., Hirschi T., and Selvin, H. C.) "Images of the Professor and Interest in the Academic Profession"; in *Sociology of Education: A Book of Readings*, ed. R. M. Pavalko, pp. 532-58. Itasca, Ill.: F. E. Peacock, 1968.
- FEUER, L. S. "The Decline of Freedom in Berkeley"; in *English 12: Composition and Language*, ed. J. Ashmead, R. C. Simonini and L. R. Sharp, pp. 83ff. Boston: Ginn and Co., 1968.
- "Juvenocracy"; in *The Sense of the Sixties*, ed. E. Quinn and P. J. Dolan, pp. 30-9. New York: Free Press, 1968.
- "On Civil Disobedience" (*The New York Times Magazine*, Nov. 26, 1967, pp. 29, 122).
- Reviews, *American Sociological Review*, vol. 33, no. 3, June 1968, pp. 465-7; *Books*, vol. 4, no. 9, 1967, p. 1.

- GERSON, W. M. "Violence as an American Value Theme"; in *Violence and the Mass Media*, ed. O. N. Larsen, pp. 151-62. New York: Harper & Row, 1968.
- GERSON, W. M. (with Lund, S. H.) "Playboy Magazine: Sophisticated Smut or Social Revolution?" (*Journal of Popular Culture*, vol. 1, no. 3, winter 1967, pp. 218-27).
- GIFFEN, P. J. "The Revolving Door: A Functional Interpretation" (*Canadian Review of Sociology and Anthropology*, vol. 3, no. 3, Aug. 1966, pp. 154-66).
- HARVEY, E. "Decision Makers in Conflict" (*The Business Quarterly*, vol. 32, no. 3, autumn 1967, pp. 23-7).
- "Social Change and the Jazz Musician" (*Social Forces*, vol. 46, no. 1, Sept. 1967, pp. 34-42).
- "Technology and the Structure of Organizations" (*American Sociological Review*, vol. 33, no. 2, April 1968, pp. 247-59).
- LOUBSER, J. J. "Calvinism, Equality, and Inclusion: The Case of Afrikaner Calvinism"; in *The Protestant Ethic and Modernization: A Comparative View*, ed. S. N. Eisenstadt, pp. 367-83. New York: Basic Books, 1968.
- Review, *American Journal of Sociology*, vol. 73, no. 6, May 1968, pp. 773-4.
- LUCAS, R. "Social Implications of the Immediacy of Death" (*Canadian Review of Sociology and Anthropology*, vol. 5, no. 1, Feb. 1968, pp. 1-16).
- MICHELSON, W. "A 'Parsonian' Scheme for the Study of Man and Environment, or What Human Ecology Left Behind in the Dust" (*Sociological Inquiry*, vol. 38, no. 2, spring 1968, pp. 37-48).
- "Potential Candidates for the Designers' Paradise: A Social Survey from a Nationwide Survey" (*Social Forces*, vol. 46, no. 4, Dec. 1967, pp. 190-6).
- "Social Insights to Guide the Design of Housing for Low-Income Families"; in *Critical Urban Housing Issues: 1967*, pp. 60-8. Washington, D.C.: National Association of Housing and Renewal Officials, 1967. Reprinted in *Ekistics*, vol. 25, no. 149, April 1968, pp. 252-5.
- "Urban Sociology as an Aid to Urban Physical Development: Some Research Strategies" (*Journal of the American Institute of Planners*, vol. 34, no. 2, March 1968, pp. 105-8). A preliminary version preprinted in *Ekistics*, vol. 24, no. 144, Nov. 1967, pp. 401-4).
- NISHIO, H. K. "Comparative Analysis of the Risshō Kōseikai and the Sōka Gakkai" (*Asian Survey*, vol. 7, no. 11, Nov. 1967, pp. 776-90).
- TILLY, C. "The Forms of Urbanization"; in *American Sociology*, ed. T. Parsons, pp. 75-89. New York: Basic Books, 1968.
- "Race and Migration to the American City"; in *The Metropolitan Enigma*, ed. J. Q. Wilson, pp. 124-46. Washington, D.C.: Chamber of Commerce of the United States, 1967. Republished by Harvard University Press, 1968, pp. 135-57.
- *The Vendée*. Cambridge: Harvard University Press, 1967. Second ed., with new preface, of book originally published in 1964. Pp. 373.
- *La Vendée*. Paris: Arthème Fayard, 1968. (Translation of above.)
- Reviews, *Comparative Studies in Society and History*, vol. 10, no. 1, Oct. 1967, pp. 100-13; *History and Theory*, vol. 6, no. 2, 1967, pp. 247-52; *Journal of Social History*, vol. 1, no. 3, spring 1968, pp. 296-302.
- TILLY, C. (with Brown, C. H.) "On Uprooting, Kinship, and the Auspices of Migration" (*International Journal of Comparative Sociology*, vol. 8, no. 2, Sept. 1967, pp. 139-64).
- WALKER, K. N. "A Comparison of the University Reform Movements in Argentina and Colombia"; in *Student Politics*, ed. S. M. Lipset, pp. 293-317. New York: Basic Books, 1967.
- WEINBERG, I. "Some Methodological and Field Problems of Social Research in Elite Secondary Schools" (*Sociology of Education*, vol. 41, no. 2, spring 1968, pp. 141-55).
- "What do we Want of the Public Schools?" (*New Society*, no. 282, Feb. 22, 1968, pp. 270-2).
- Reviews, *American Sociological Review*, vol. 33, no. 3, June 1968, p. 478; *Social Forces*, vol. 46, no. 3, March 1968, p. 421.
- ZAKUTA, L. "Equality in North American Marriages"; in *Readings in Introductory Sociology*, ed. D. H. Wrong and H. L. Gracey, pp. 272-80. New York: Macmillan, 1967.

ZOOLOGY

- ATWOOD, C. E. "A Change of Feeding Habit in *Archips cerasivorana* (Fitch) (Lepidoptera, Tortricidae)" (*Proceedings, Entomological Society of Ontario*, vol. 97, 1966, pp. 115-17).
- ATWOOD, H. L. "Crustacean Neuromuscular Mechanisms" (*American Zoology*, vol. 7, 1967, pp. 527-52).
- "Influence of Nitrate and other Anions on Fast and Slow Contractions of Crab Muscle" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, 1968, pp. 1-9).
- "Variation in Physiological Properties of Crustacean Motor Synapses" (*Nature*, vol. 215, no. 5096, 1967, pp. 57-8).
- ATWOOD, H. L., et al. "Presynaptic Inhibition in Crustacean Muscle: Axo-axonal Synapse" (*Experientia*, vol. 23, 1967, pp. 1036-8).

- "Strychnine and Neuromuscular Transmission in the Cockroach" (*Journal of Insect Physiology*, vol. 13, 1967, pp. 1065-73).
- BRINKHURST, R. O. "The Distribution of Aquatic Oligochaetes in Saginaw Bay, Lake Huron" (*Limnology and Oceanography*, vol. 12, no. 1, 1967, pp. 137-43).
- BRINKHURST, R. O., et al. "Rostherne Mere, England, a further instance of Guantrophy" (*Journal of Fisheries Research Board of Canada*, vol. 24, no. 6, 1967, pp. 1299-1313).
- BURNS, C. W., and RIGLER, F. H. "Comparison of Filtering Rates of *Daphnia rosea* in Lake Water and in Suspensions of Yeast" (*Limnology and Oceanography*, vol. 12, no. 3, 1967, pp. 492-502).
- BUTLER, D. G. "Effect of Ovine Prolactin on Tissue Electrolyte Composition of Hypophysectomized Freshwater Eels (*Anguilla rostrata*)" (*Journal of Fisheries Research Board of Canada*, vol. 24, no. 8, 1967, pp. 1823-6).
- "Hormonal Control of Gluconeogenesis in the North American Eel (*Anguilla rostrata*)" (*Journal of General and Comparative Endocrinology*, vol. 10, 1968, pp. 85-91).
- BUTLER, D. G., et al. "Tissue Electrolyte Composition of the Freshwater Eel (*Anguilla rostrata*) following partial surgical adrenalectomy" (*Journal of Comparative Biochemistry and Physiology*, vol. 22, no. 1, 1967, pp. 309-12).
- CAMPBELL, I. M. "On Coniferophagous Species of *Choristoneura* (Lepidoptera: Tortricidae) in North America" (*Canadian Entomologist*, vol. 99, no. 4, 1967, pp. 482-6).
- CHURCHER, C. S. "Man from the Early Wisconsin of Alberta" (*Royal Ontario Museum Archaeological Newsletter*, n.s. no. 25, 1967, pp. 1-5).
- "*Smilodon neogaeus* en las barrancas costeras de Mar del Plata, provincia de Buenos Aires" (*Publ. Mus. Municipal de Ciencias Naturales de Mar de la Plata*, vol. 1, no. 8, 1967, pp. 245-62).
- CLARK, G. M., SWEANEY, W. P., et al. "Germination and Survival of Conifers following Chronic Gamma Irradiation of Seed" (*Radiation Botany*, vol. 8, 1968, pp. 59-66).
- DUNHAM, D. W., et al. "Threat and Appeasement in *Barbus stoliczkanus* (Cyprinidae)" (*Behaviour*, vol. 30, no. 1, 1968, pp. 15-26).
- Review, *Wilson Bulletin*, vol. 80, no. 1, 1968, pp. 118-19.
- ENGELBERT, V. E. "Productivity in Lymphoid Blast Cells investigated with Radio-active Isotopes and other Techniques" (*Haematologica Latina*, vol. 10, no. 1, 1967, pp. 65-88).
- ERIKSEN, C. H., and FELDMETH, C. R. "A Water-current Respirometer" (*Hydrobiologia*, vol. 29, no. 3-4, 1967, pp. 495-504).
- FALLS, J. B. "The Importance of Wilderness to Science" (*Ontario Naturalist*, Dec. 1967, pp. 14-18).
- Review, *Wilson Bulletin*, vol. 80, 1968, pp. 119-20.
- FISHER, K. C., and MANERY, J. F. "Water and Electrolyte Metabolism in Heterotherms"; in *Mammalian Hibernation III*, ed. K. C. Fisher, A. R. Dawe, C. P. Lyman, E. Schonbaum and F. E. South, pp. 235-79. Edinburgh and London: Oliver and Boyd, 1967.
- HARTMANN, J. F., and ZIMMERMAN, A. M. "The Isolated Mitotic Apparatus - Studies on Nucleoproteins" (*Experimental Cell Research*, vol. 50, 1968, pp. 403-17).
- HARVEY, H. H., et al. "Sounding Response of Salmon" (*Journal of Fisheries Research Board of Canada*, vol. 25, 1968, pp. 1115-31).
- HURLEY, D. A., and FISHER, K. C. "The Structure and Development of the External Membrane of Young Eggs of the Brook Trout, *Salvelinus fontinalis* (Mitchill)" (*Canadian Journal of Zoology*, vol. 44, 1967, pp. 173-90).
- IDE, F. P. "Effects of Pesticides (toxicants) on Stream Life" (*Developments in Industrial Microbiology*, vol. 9, 1968, pp. 132-45).
- "Family Nymphomyiidae" (*A Catalogue of the Diptera of the Americas South of the United States*, no. 7, 1968, pp. 7.1-7.2).
- JAHROMI, S. S., and ATWOOD, H. L. "Ultrastructural Features of Crayfish Phasic and Tonic Muscle Fibers" (*Canadian Journal of Zoology*, vol. 45, 1967, pp. 601-6).
- KNERER, G. "Evolution of Social Life" (*Central Association of Bee-keepers*, London, May 1967, pp. 1-8).
- KNERER, G., and ATWOOD, C. E. "Parasitization of Social Halictine Bees in Southern Ontario" (*Proceedings of the Entomological Society of Ontario*, vol. 97, 1966, pp. 103-10).
- KNERER, G., and PLATEAUX-QUÉNU, C. "Comparison de la construction et de l'architecture de quelques nids d'*Evylaeus* (Hym., Halictidae) à rayon de cellules" (*Comptes Rendus à l'Académie des Sciences*, Paris, vol. 265, 1967, pp. 455-8).
- "Sur la production de mâles chez les 'Halictinae' (Insectes, Hyménoptères) sociaux" (*Comptes Rendus à l'Académie des Sciences*, Paris, vol. 264, 1967, pp. 1096-9).
- "Sur la production continue ou périodique de couvain chez les Halictinae (Insectes, Hyménoptères)" (*ibid.*, pp. 651-3).
- "Usurpation de nids étrangers et le parasitisme facultatif chez *Halictus scabiosae* (Rossi) (Insecte Hyménoptère)" (*Insectes Sociaux*, vol. 14, no. 1, 1967, pp. 47-50).
- LAALE, H. W., and MCCALLION, D. J. "Reversible Developmental Arrest of the Embryo of the Zebrafish, *Brachydanio rerio*" (*Journal of Experimental Zoology*, vol. 167, no. 1, 1967, pp. 117-28).
- LAI-FOOK, J. E. "The Structure of Developing Muscle Insertions in Insects" (*Journal of Morphology*, vol. 123, no. 4, 1967, pp. 503-28).

- LAKE, P., and FRIEND, W. G. "The Use of Artificial Diets to Determine some of the Effects of *Nocardia rhodnii* on the Development of *Rhodnius prolixus*" (*Journal of Insect Physiology*, vol. 14, 1968, pp. 543-62).
- LEIKOLA, A., and MCCALLION, D. J. "Inductive Capacity of Killed Hensen's Node and Head Process in the Chick Embryo" (*Canadian Journal of Zoology*, vol. 46, 1967, pp. 205-6).
- LOWTHER, J. K., and FALLS, J. B. Review, *U.S. National Museum Bulletin*, no. 237, part 3, 1968, pp. 1364-92).
- MACHIN, J. "The Permeability of the Epiphragm of Terrestrial Snails to Water Vapour" (*Biological Bulletin*, vol. 134, 1968, pp. 87-95).
- MCCALLION, D. J., and LEIKOLA, A. "A Study of Heterogenous Inductors with Chick Ectoderm" (*Annales Zoologici Fennici*, vol. 4, 1967, pp. 588-91).
- "Time Required for Heterogenous Induction in Chick Ectoderm" (*Experientia*, vol. 23, no. 869, 1967, pp. 1-4).
- METTRICK, D. F. "Effect of Zein Diets on Nitrogen Content of *Hymenolepis diminuta* and on Rat Liver Protein Nitrogen" (*Journal of Parasitology*, vol. 53, no. 4, 1967, pp. 688-91).
- "Studies on the Protein Metabolism of Cestodes. 2. Effect of Free Dietary Amino Acid Supplements on the Growth of *Hymenolepis diminuta*" (*Parasitology*, vol. 58, no. 1, 1968, pp. 37-46).
- METTRICK, D. F., and DUNKLEY, L. C. "Observations on the Occurrence, Growth and Morphological Variation of *Mesocoelium danforthi* Hoffman, 1935, in Jamaica" (*Caribbean Journal of Science*, vol. 8, nos. 1-2, 1968, pp. 17-39).
- METTRICK, D. F., and PARNELL, J. R. "Exposure of *Tribolium confusum* to Thio-TEPA, and its Effect upon Development of *Hymenolepis diminuta* Cysticercoids" (*Experimental Parasitology*, vol. 20, no. 1, 1967, pp. 17-26).
- MORIN, W. A., and ATWOOD, H. L. "Excitatory and Inhibitory Synapses in Crayfish Single Muscle Fibers" (*Proceedings, Federated Society for Experimental Biology*, vol. 27, 1968, p. 236).
- MORRIS, G. K., et al. "Terminal Amplifiers Spectrum Consistencies in *Conocephalus nigropleurum* (Brunner), Tettigoniidae" (*Journal of Insect Physiology*, vol. 13, 1967, pp. 1075-85).
- MROSOVSKY, N. "The Adjustable Brain of Hibernators" (*Scientific American*, vol. 218, 1968, pp. 110-18).
- "How Turtles Find the Sea" (*Science Journal*, 1967, pp. 53-37).
- "Lowered Body Temperature, Learning and Behaviour"; in *Mammalian Hibernation III*, ed. K. C. Fisher, A. R. Dawe, C. P. Lyman, E. Schonbaum and F. E. South, pp. 152-74. Edinburgh and London: Oliver & Boyd, 1967.
- MROSOVSKY, N., et al. "Preference for Light of Short Wavelengths in Hatching Green Sea Turtles, *Chelonia mydas*, tested on their Natural Nesting Beaches" (*Behaviour*, vol. 28, nos. 3-4, 1967, pp. 217-31).
- PALOHEIMO, J., et al. "Analysis of the Southern Gulf of St. Lawrence Cod Populations" (*Journal of Fisheries Research Board of Canada*, vol. 25, no. 3, 1968, pp. 555-78).
- PARSONS, M. C. "Modifications of the Prothoracic Pleuron in *Hydrocorisae* (Heteroptera)" (*Transactions, Royal Entomological Society, London*, vol. 119, no. 7, 1967, pp. 215-34).
- PARSONS, T. S. "Evolution of the Nasal Structure of the Lower Tetrapods" (*American Zoologist*, vol. 7, 1967, pp. 397-413).
- PARSONS, T. S., et al. "The Nasal Anatomy of *Kinosternon* and *Sternotherus* (Testudines: Kinosternidae)" (*Canadian Journal of Zoology*, vol. 46, 1968, pp. 399-404).
- PENGELLEY, E. T., and FISHER, K. C. "Locomotor Activity Patterns and their Relation to Hibernation in the Golden-mantled Ground Squirrel" (*Journal of Mammalogy*, vol. 47, no. 1, 1967, pp. 63-73).
- PIMLOTT, D. H. "The 1967 Seal Hunt" (*Canadian Audubon*, vol. 29, no. 2, 1967, pp. 41-3).
- "The Whitecoat in Peril" (*Audubon*, vol. 69, no. 5, 1967, pp. 77-81).
- "Wolf Predation and Ungulate Populations" (*American Zoologist*, vol. 7, 1967, pp. 267-78).
- "Wolves, Deer and Hunters" (*Bulletin, Conservation Council of Ontario*, vol. 14, no. 2, 1967, pp. 2-5).
- PIMLOTT, D. H., et al. "Interrelationships of Wolves and Deer in Algonquin Park" (*Transactions, N.E. Wildlife Conference, Quebec City*, 1967, pp. 1-16).
- REED, T. E. "Distributions and Tests of Independence of Seven Blood Group Systems in a Large Multiracial Sample from California" (*American Journal of Human Genetics*, vol. 20, 1968, pp. 142-50).
- "The Evidence for Natural Selection due to Blood Groups" (*Proceedings, World Population Conference, Belgrade*, vol. 2, Aug. 1965, pp. 498-502).
- "Research on Blood Groups and Selections from the Child Health and Development Studies, Oakland, California. I. Infant Birth Measurements; II. Gravidae's Characteristics; III. Couple Mating Type and Reproductive Performance" (*American Journal of Human Genetics*, vol. 19, no. 6, 1967, pp. 732-46; vol. 20, 1968, pp. 119-28; pp. 129-41).
- REED, T. E., et al. "The Accuracy of Blood Grouping of Cold Blood Specimens with Special Reference to the MN System" (*Vox Sanguinis*, vol. 14, 1968, pp. 9-17).

- "The Number of Balanced Polymorphisms that can be Maintained in a Natural Population" (*Genetics*, vol. 55, no. 3, 1967, pp. 469-78).
- REGIER, H. A., *et al.* "An Aquarium Temperature Control System for Field Stations" (*Progressive Fish Culturist*, vol. 30, no. 1, 1968, pp. 43-36).
- "Estimating Population Number and Mortality Rates"; in *The Biological Basis of Freshwater Fish Production*, ed. S. D. Gerking, pp. 31-66. Oxford: Blackwell, 1967.
- RIGLER, F. H. "Further Observations Inconsistent with the Hypothesis that the Molybdenum Blue Method Measures Orthophosphate in Lake Water" (*Limnology and Oceanography*, vol. 13, no. 1, 1968, pp. 7-13).
- ROBSON, D. A., and REGIER, H. A. "Estimation of Population Number and Mortality Rates"; in *Methods for Assessment of Fish Production in Fresh Waters*, ed. W. E. Ricker, pp. 124-58. Oxford: Blackwell, 1968.
- SAHOTA, T. S., and BECKEL, W. E. "The Influence of Epidermis on the Developing Flight Muscles in *Galleria mellonella*" (*Canadian Journal of Zoology*, vol. 45, 1967, pp. 421-34).
- "Orientation Determination of Developing Flight Muscles in *Galleria Mellonella*" (*ibid.*, pp. 407-20).
- SMITH, J. J. B. "Hearing in Terrestrial Urodeles: a Vibration-sensitive Mechanism in the Ear" (*Journal of Experimental Biology*, vol. 48, 1968, pp. 191-205).
- SPEIRS, J. M., and ORENSTEIN, R. "Bird Populations in Fields of Ontario County, 1965" (*Canadian Field Naturalist*, vol. 81, no. 3, 1967, pp. 175-83).
- STROBEL, M. G., *et al.* "Ontogeny of the Approach Response. A Radio-sensitive Period during Embryological Development of Domestic Chicks" (*Journal of Comparative and Physiological Psychology*, vol. 65, 1968, pp. 314-19).
- THEBERGE, J. B., and FALLS, J. B. "Howling as a Means of Communication in Timber Wolves" (*American Zoologist*, vol. 7, 1967, pp. 331-8).
- THOMPSON, M. W., *et al.* "An Assessment of the Creatine Kinase Test in the Detection of Carriers of Duchenne Muscular Dystrophy" (*Journal of Pediatrics*, vol. 71, 1967, pp. 82-93).
- THOMPSON, J. S., and THOMPSON, M. W. "The Problem of Intersex" (*Journal of American Medical Women's Association*, vol. 22, no. 11, 1967, pp. 827-35).
- THORNECROFT, H. B. "Chromosomal Polymorphism in the White-Throated Sparrow, *Zonotrichia albicollis* (Gmelin)" (*Science*, vol. 154, no. 3756, 1967, pp. 1571-2).
- ZIMMERMAN, A. M. "Sensitivity of *Amoeba proteus* to Morphine and N-allylnormorphine. A Pressure Study" (*Journal of Protozoology*, vol. 14, no. 3, 1967, pp. 451-5).
- ZIMMERMAN, A. M., *et al.* "Action of Colcemid in Sea Urchin Eggs" (*Journal of Cell Biology*, vol. 34, 1967, pp. 483-8).
- "Studies on Incorporation of ³H-thymidine in *Arbacia* Eggs under Hydrostatic Pressure" (*Experimental Cell Research*, vol. 46, 1967, pp. 469-76).
- ZIMMERMAN, S. B., MURAKAMI, T. H., and ZIMMERMAN, A. M. "The Effects of Selected Chemical Agents on Furrow Induction in the Eggs of *Arbacia punctulata*" (*Biological Bulletin*, vol. 134, 1968, pp. 356-66).

FACULTY OF MEDICINE

ANAESTHESIA

- CONN, A. W. "Practical Policy for Non-explosive Anaesthesia" (*Hospital Administration in Canada*, vol. 9, no. 9, Sept. 1967, pp. 60-2).
- EVANS, D., and BOYES, H. W. "Chronic Catheterization of Blood Vessels in the Dog" (*Canadian Anaesthetists' Society Journal*, vol. 15, no. 2, March 1968, pp. 135-41).
- FAIRLEY, H. B. "Principles and Practice of Mechanical Ventilation" (*Applied Therapeutics*, vol. 10, Jan. 1968, p. 36).
- FAIRLEY, H. B., KERR, J. H., LAWS, A. K., and SELLERY, G. R. "The Avoidance of Post-operative Hypoxaemia: An Assessment of Three Techniques for Use during Anaesthesia" (*Canadian Anaesthetists' Society Journal*, vol. 15, no. 2, March 1968, pp. 152-62).
- GORDON, R. A. "The Canadian Contribution to the Anaesthesia Training Programme of the World Federation of Societies of Anaesthesiologists" (*Canadian Anaesthetists' Society Journal*, vol. 14, no. 6, Nov. 1967, pp. 495-9).
- MARSHALL, B. M., LOUGHEED, W. M., and GORDON, R. A. "Evaluation of the Effect of Anaesthetic Techniques on Survival after Intracranial Surgery for Ruptured Aneurysms" (*Canadian Anaesthetists' Society Journal*, vol. 15, no. 3, May 1968, pp. 227-31).
- RELTON, J. E. S., CREIGHTON, R. E., and CONN, A. W. "Fulminant Hyperpyrexia Associated with Anaesthesia" (*Anaesthesia*, vol. 23, no. 2, April 1968, pp. 253-8).

- SELLERY, G. R. "A Review of the Causes of Postoperative Hypoxia" (*Canadian Anaesthetists' Society Journal*, vol. 15, no. 2, March 1968, pp. 142-51).
- WILKES, F. C. D., OWEN-THOMAS, J. B., SWYER, P. R., and CONN, A. W. "Evaluation of a Respirator for Neonates" (*British Journal of Anaesthesia*, vol. 40, no. 1, Jan. 1968, pp. 61-4).

ANATOMY

- BERTRAM, E. G. "Recurrent Collaterals in the Cerebral Cortex of Cat and Man" (*Anatomical Record*, vol. 160, no. 2, Feb. 1968, p. 507).
- JÉZÉQUEL, A. M. (with GIVAN, K., and TURNBULL, C.) "Pepsin Digestion of Virus Particles in Canine Hepatitis using Epon-Embedded Material" (*Journal of Histochemistry and Cytochemistry*, vol. 15, 1967, p. 688).
- JÉZÉQUEL, A. M., STOMRA, S., and BORDOLUCCI, B. "Studies on Fatty Liver Induced by Tetracycline" (*Federation Proceedings*, vol. 27, no. 2, 1968, p. 665).
- JÉZÉQUEL, A. M., and STEINER, J. W. "A Propos of the 'Presence of Virus-like Bodies in Liver Cells of Patients with Infectious Hepatitis'" (*Journal of Clinical Pathology*, vol. 20, 1967, p. 788).
- "Electron Microscopy of Liver Biopsies and of Transmissible Agents from Hepatitis Patients" (*Tijdschrift voor Gastroenterologie*, vol. 10b, supp., *Liver Research*, ed. J. Vandenbroucke *et al.*, 1967, p. 3).
- THOMPSON, J. S. "Atherosclerosis in Inbred Strains of Mice" (*Anatomical Record*, vol. 160, no. 2, Feb. 1968, p. 440) (abstract).
- Reviews, *Canadian Journal of Genetics and Cytology*, vol. 9, Dec. 1967, p. 894; *Medical Post*, March 26, 1968, pp. 14-15.
- THOMPSON, J. S., McLAUGHLIN, P. R., and HESLIN, D. J. "Impaired Pronation-Supination of the Forearm; an Inherited Condition" (*Journal of Medical Genetics*, vol. 5, no. 1, March 1968, pp. 48-51).
- THOMPSON, J. S., and THOMPSON, M. W. "The Problem of Intersex" (*Journal of the American Medical Women's Association*, vol. 22, no. 11, Nov. 1967, pp. 827-35).

DIVISION OF AUDIO VISUAL RESOURCES

- SWANSON, J. N. "Introduction to Conference on Audio Visual Aids in Medical Teaching" (*Canadian Medical Association Journal*, vol. 98, no. 23, June 8, 1968, pp. 1080-1).
- "Television in Medical Teaching" (editorial) (*Canadian Medical Association Journal*, vol. 98, no. 24, June 15, 1968, p. 1151).

BACTERIOLOGY

- DUNCAN, I. B. R. "Virology in a General Hospital" (*Canadian Medical Association Journal*, vol. 98, no. 22, June 1, 1968, pp. 1050-6).
- FLEMING, P. C. "The Nephrotoxicity of Cephaloridin in Rabbits and Man" (*Applied Therapeutics*, vol. 9, 1967, p. 948).
- FLEMING, P. C., *et al.* "Characteristics of Aerobacter beta-lactamase" (*Canadian Journal of Microbiology*, vol. 14, no. 2, Feb. 1968, pp. 139-45).
- "Febrile Mucocutaneous Syndrome with Respiratory Involvement Associated with Isolation of *Mycoplasma pneumoniae*" (*Canadian Medical Association Journal*, vol. 97, no. 24, Dec. 9, 1967, pp. 1458-9).
- LEERS, W. D., ROZEE, K. R., and WARDLAW, A. C. "Immunodiffusion and Immunoelectrophoretic Studies of Reovirus Antigens" (*Canadian Journal of Microbiology*, vol. 14, no. 2, Feb. 1968, pp. 161-4).
- TUFFNELL, P. G., and GREEN, R. N. "Laboratory Acquired Melioidosis" (*American Journal of Medicine*, vol. 44, no. 4, pp. 599-605).

BANTING AND BEST DEPARTMENT OF MEDICAL RESEARCH

- BAER, E., and BASU, H. "Phosphonolipids XVI. An Alternative Method for the Synthesis of Phosphonic Acid Analogues of L- α -Cephalins" (*Canadian Journal of Biochemistry*, vol. 46, 1968, p. 351).
- BAER, E., BASU, H., and PAL, B. C. "Phosphonolipids X. A New Synthesis of Phosphonic Acid Analogues of L- α -Cephalins" (*Canadian Journal of Biochemistry*, vol. 45, 1967, p. 1467).
- BAER, E., DUKE, A. J., and BUCHNEA, D. "Synthesis of Propylene Glycol Phospholipids: Analogues of L- α -Lecithins and L- α -Cephalins" (*Canadian Journal of Biochemistry*, vol. 46, 1968, p. 69).
- BAER, E., and PAL, B. C. "Phosphonolipids XIII. Synthesis of Dihydroceramide Aminoethylphosphonates" (*Canadian Journal of Biochemistry*, vol. 45, 1967, p. 1478).

- "Phosphonolipids XV. Synthesis of Dihydroceramide Aminoethylphosphonate" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, May 1968, pp. 525-32).
- BAER, E., and ROBINSON, R. "Phosphonolipids XI. Synthesis of Phosphonolipid Metabolites. L- α -Glyceryl-(2-trimethyl-ammoniummethyl)phosphonate" (*Canadian Journal of Biochemistry*, vol. 45, 1967, p. 1747).
- BAER, E., and SARMA, G. R. "Phosphonolipids XII. Synthesis of Phosphonolipid Metabolites. L- α -Glyceryl-(2-aminoethyl)-phosphonate" (*Canadian Journal of Biochemistry*, vol. 45, 1967, p. 1755).
- BAER, E., SARMA, G. R., ROBINSON, R., and SASTRY, P. S. "Phosphonolipids XIV. Detection and Identification of Glycerolphosphonolipids in the Presence of their Phospholipid Analogues by Paper Chromatography of their Saponification Products" (*Canadian Journal of Biochemistry*, vol. 45, 1967, p. 1783).
- BROSKY, G., and LOGOTHETOPOULOS, J. "Streptozotocin-Induced Diabetes in the Mouse and Guinea Pig" (*Federation Proceedings*, vol. 27, no. 2, April 1968, abstr. 1860, p. 547).
- CLARKE, D. W., and GITTENS, B. "The Effect of Serum from Multiple Sclerosis Patients on the Free Fatty Acids Output of Rat Brain Slices" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, May 1968, pp. 507-9).
- HETENYI, G., JR., and WRENSHALL, G. A. "Adaptive Changes in Rates of Appearance and Disappearance of Glucose in Dogs following Step Changes in the Rate of Glucose Infusion" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, no. 5, May 1968, pp. 391-8).
- KUKSIS, A. "Gas Chromatography of Neutral Glycerides"; in *Lipid Chromatographic Analysis*, ed. G. V. Marinetti, vol. 1, pp. 239-337. New York: Marcel Dekker, Inc., 1967.
- KUKSIS, A., and ALI, S. S. "Excretion of Phospholipids by Men on Fat Free Diet" (*Canadian Journal of Biochemistry*, vol. 45, no. 5, May 1967, pp. 689-702).
- "Excretion of Phospholipids by Men on High Fat Diets" (*ibid.*, pp. 703-14).
- KUKSIS, A., and BRECKENRIDGE, W. C. "Specific Distribution of Short-Chain Fatty Acids in Molecular Distillates of Bovine Milk Fat" (*Journal of Lipid Research*, vol. 9, no. 3, May 1968, pp. 388-93).
- KUKSIS, A., and GORNALL, D. A. "Thin-Layer Chromatography of Egg Yolk Lipoproteins on Hydroxylapatite" (*Federation Proceedings*, vol. 27, no. 2, March-April 1968, abstr. 3389, p. 816).
- KUKSIS, A., and HUANG, T. C. "A Comparative Study of the Lipids of Chylomicron Membrane and Fat Core and of the Lymph Serum of Dogs" (*Lipids*, vol. 2, no. 6, Nov. 1967, pp. 443-52).
- "A Comparative Study of the Lipids of Globule Membrane and Fat Core and of the Milk Serum of Cows" (*ibid.*, pp. 453-60).
- KUKSIS, A., MARAI, L., and GORNALL, D. A. "Direct Gas Chromatographic Examination of Total Lipid Extracts" (*Journal of Lipid Research*, vol. 8, no. 4, July, 1967, pp. 352-8).
- KUKSIS, A., and SUBBIAH, M. T. "Alkaline Solvent Systems for Thin-Layer Chromatography of Bile Acids" (*Journal of Lipid Research*, vol. 9, no. 2, March 1968, pp. 288-90).
- LOGOTHETOPOULOS, J. "Electron Microscopy of the Pancreatic Islets Stimulated by Insulin Antibody" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, May 1968, pp. 407-10).
- LUCAS, C. C., and RIDOUT, J. H. "Fatty Livers and Lipotropic Phenomena"; in *Progress in the Chemistry of Fats and Other Lipids*, vol. X, part I. London, New York: Pergamon Press, 1967.
- MOOKERJEA, S. "Impairment of Glycoprotein Synthesis in Liver Microsomes and in Plasma Fractions during the Development of Fatty Liver" (*Seventh International Congress of Biochemistry*, Tokyo, 1967, abstr. F-171, p. 791).
- "Glucosamine- 14 C Incorporation into Plasma and Liver Proteins of Rats in Acute Ethanol Intoxication" (*Federation Proceedings*, vol. 27, 1968, abstr. 1870, p. 549).
- MOOKERJEA, S., JENG, D., and BLACK, J. "Studies on the Synthesis of Plasma Glycolipoprotein and Hepatic Sub-cellular Glycoprotein in Early Choline Deficiency" (*Canadian Journal of Biochemistry*, vol. 45, 1967, pp. 825-38).
- MORLEY, N. H. "A Cellulose Adsorbent Method for the Determination of Insulin Antibodies in Adult and Neonatal Guinea Pig Sera" (*Federation Proceedings*, vol. 27, no. 2, April 1968, abstr. 2929, p. 736).
- MORLEY, N. H., and CLARKE, D. W. "Influence of Ethanol and Tolbutamide on Carbohydrate Metabolism in the Dog" (*Quarterly Journal Studies on Alcohol*, vol. 28, no. 4, Dec. 1967, pp. 605-12).
- PARK, C. E. "Mitochondrial Lipids of ELD Ascites Tumor Cells" (*Proceedings of the American Association of Cancer Research*, 1968, p. 222).
- RAPPAPORT, A. M., VRANIC, M., COWAN, J. S., and WRENSHALL, G. A. "Autogreffé sous-cutanée pédiculée d'un résidu isolé pancréatique pour blocage temporaire de la sécrétion pancréatique interne chez le chien" (*Revue Medico-Chirurgicale des Maladies du Foie de la Rate et du Pancreas*, vol. 42, no. 6, 1967, pp. 247-64).
- ROSENFELD, B. "Effects of a Single Choline-Deficient Meal on Phospholipids of Hepatic Particulate Lipid of the Rat" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, May 1968, pp. 495-8).
- SUBBIAH, M. T., KUKSIS, A., and MOOKERJEA, S. "Bile Acid Composition of Perfused Liver

- Bile of Normal and Choline Deficient Rats" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, 1967, abstr. 3, p. 5).
- TUNG, A. K., and YIP, C. C. "The Biosynthesis of Insulin and 'Proinsulin' in Foetal Bovine Pancreas" (*Diabetologia*, vol. 4, no. 1, Jan. 1968, pp. 68-70).
- VRANIC, M., and WRENSHALL, G. A. "Matched Rates of Insulin Infusion and Secretion and Concurrent Tracer-Determined Rates of Glucose Appearance and Disappearance in Fasting Dogs" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, no. 5, May 1968, pp. 383-90).
- VRANIC, M., WRENSHALL, G. A., KUKSIS, A., and LIN, B. "Matched Rates of Insulin Secretion and Infusion in Fasting Dogs" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, no. 5, July 1967, abstr. 281, p. 103).
- YIP, C. C. "The Hydrogen Peroxide Complex of a Purified Thyroid Peroxidase" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, July 1967, p. 94).
- YIP, C. C., and HADLEY, L. D. "Involvement of Free Radicals in the Iodination of Tyrosine and Thyroglobulin by Myeloperoxidase and a Purified Beef Thyroid Peroxidase" (*Archives of Biochemistry and Biophysics*, vol. 120, no. 3, June 1967, pp. 533-6).
- YIP, C. C., and LIN, B. J. "Amino Acid Composition of Bovine 'Proinsulin'" (*Biochemical and Biophysical Research Communications*, vol. 29, no. 3, Nov. 1967, pp. 382-7).
- ZIMMERMAN, A. E., and YIP, C. C. "The Effects of Thyrotrophic Hormone and PTU on the Iodinating Activity of the Rat Thyroid Gland" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, July 1967, p. 111).

BIOCHEMISTRY

- ANWAR, R. A., *et al.* "Specificity of Purified Elastase" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 24) (abstract no. 58).
- CONNELL, G. E., and SZEWCZUK, A. "The Properties of Gamma-glutamyl-lactamase in Man" (*Clinica Chimica Acta*, vol. 17, Sept. 1967, pp. 423-30).
- DIXON, J. W., BURROWES, C., SCHACHTER, H., and HOFMANN, T. "Activity and Amino-terminal Groups in α -chymotrypsin" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, June 1967, p. 19) (abstract).
- DODDS, W. J., PACKHAM, M. A., ROWSELL, H. C., and MUSTARD, J. F. "Factor VII Survival and Turnover in Dogs" (*American Journal of Physiology*, vol. 213, no. 1, July 1967, pp. 36-42).
- EVANS, G., NISHIZAWA, E. E., PACKHAM, M. A., and MUSTARD, J. F. "The Effect of Acetylsalicylic Acid (Aspirin) on Platelet Function" (*Blood*, vol. 30, no. 4, Oct. 1967, p. 550).
- GERTLER, A., and HOFMANN, T. "Pancreatic Elastase and its Precursor - Proelastase" (*Israel Journal of Chemistry*, vol. 5, no. 4, July-Aug. 1967, pp. 132-3).
- GUNETILEKE, K. G., and ANWAR, R. A. "Biosynthesis of Uridine Diphospho-N-acetyl Muramic Acid" (*Proceedings of the 7th International Congress of Biochemistry*, Tokyo, Aug. 1967, p. 714).
- HASTINGS, P., and WONG, J. T. "A Simple Procedure for Eluting Nucleotides from Thin-layer Plates" (*Analytical Biochemistry*, vol. 22, no. 1, Jan. 1968, pp. 169-70).
- HOFMANN, T., RESENDES, J., and MAGNUSSON, S. "The Role of the NH₂-terminal Group in the Activity of Thrombin" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, June 1967, p. 18) (abstract).
- HOLUB, B. J., and KUKSIS, A. "Molecular Species of Phosphatidyl Ethanolamine from Egg Yolk" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 66) abstract no. 179).
- HOVIG, T., Jorgensen, L., PACKHAM, M. A., and MUSTARD, J. F. "Platelet Adherence to Fibrin and Collagen" (*Journal of Laboratory and Clinical Medicine*, vol. 71, no. 1, Jan. 1968, pp. 29-40).
- LAVERS, B. H., and TINKER, D. O. "Liver and Tumour Lipid Composition in Mice Bearing Extra-hepatic Tumours" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 51) (abstract no. 135).
- MAUNG, M., BAKER, D. G., and MURRAY, R. K. "Studies on the Nature of the Seromucoid and Haptoglobin Responses to Experimental Inflammation" (*Canadian Journal of Biochemistry*, vol. 46, no. 5, May 1968, pp. 477-81).
- McELROY, F. A., and WILLIAMS, G. R. "Kinetic Studies of the Tricarboxylic Acid Cycle" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 92) (abstract no. 255).
- MUSTARD, J. F., GLYNN, M. F., JORGENSEN, L., NISHIZAWA, E. E., PACKHAM, M. A., and ROWSELL, H. C. "Recent Advances in Platelets, Blood Coagulation Factors and Thrombosis" (*Progress in Biochemical Pharmacology*, vol. 4, 1968, pp. 508-32).
- MUSTARD, J. F., and PACKHAM, M. A. "The Assessment of Platelet Adherence" (*Journal of Atherosclerosis Research*, vol. 7, no. 4, July-Aug. 1967, pp. 405-7).
- "Platelet Phagocytosis" (*Serie Haematologica*, vol. 1, no. 2, Feb. 1968, pp. 154-68).
- "The Unrealized Potential of Animal Diseases in the Study of Human Diseases" (*Canadian Medical Association Journal*, vol. 98, no. 19, May 11, 1968, pp. 887-90).

- MUSTARD, J. F., PACKHAM, M. A., and SENYI, A. "The Effect of DFP on Platelet Function *in vitro* and *in vivo*" (*Proceedings of the Central Society of Clinical Research*, vol. 40, Nov. 1967, p. 64).
- NAZAR, R. N., LAWFORD, H. G., and WONG, J. T. "The Role of Adenylates in the Regulation of Macromolecular Synthesis in *Escherichia coli*" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 149) (abstract no. 416).
- OLIVER, J., GUNETILEKE, G., and ANWAR, R. A. "Biosynthesis of Uridine Diphospho-N-acetyl Muramic Acid" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 28) (abstract no. 70).
- PACKHAM, M. A., and MUSTARD, J. F. "Inhibition of Platelet Aggregation by Adenine Compounds" (*Federation Proceedings*, vol. 27, no. 2, April 1968, p. 321).
- PACKHAM, M. A., MUSTARD, J. F., *et al.* "Reactions of Adenine Nucleotides with Platelets" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 71) (abstract no. 196).
- PACKHAM, M. A., NISHIZAWA, E. E., and MUSTARD, J. F. "The Response of Platelets to Tissue Injury" (*Biochemical Pharmacology*, 1968, supp., pp. 171-84).
- PACKHAM, M. A., ROWSELL, H. C., JORGENSEN, L., and MUSTARD, J. F. "Localized Protein Accumulation in the Wall of the Aorta" (*Experimental and Molecular Pathology*, vol. 7, no. 2, Oct. 1967, pp. 214-32).
- PACKHAM, M. A., WARRIOR, E. S., GLYNN, M. F., SENYI, A. S., and MUSTARD, J. F. "Alteration of the Response of Platelets to Surface Stimuli by Pyrazole Compounds" (*Journal of Experimental Medicine*, vol. 126, no. 1, July 1968, pp. 171-88).
- PARKES, J. G., and THOMPSON, W. "Phospholipids of Inner and Outer Mitochondrial Membranes" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 65) (abstract no. 178).
- SHOTTON, D. M., HARTLEY, B. S., CAMERMAN, N., HOFMANN, T., NYBURG, S. C., and RAO, L. "Crystalline Porcine Elastase" (*Journal of Molecular Biology*, vol. 32, no. 1, Feb. 28, 1968, pp. 155-6).
- SKOV, K. A., and WILLIAMS, G. R. "Ascorbate Reduction of Different Forms of Cytochrome C" (*Symposium on Cytochromes*, Osaka, Japan, Aug. 1967, pp. 185-7).
- SODEK, J., and HOFMANN, T. "Peptidase A. from *Penicillium janthinellum*, a Pepsin-like Enzyme?" (*Federation Proceedings*, vol. 26, no. 2, March 1968, p. 792).
- "A Pepsin-like Enzyme from *Penicillium janthinellum*" (*Journal of Biological Chemistry*, vol. 243, no. 2, Jan. 1968, pp. 450-1).
- SUBBIAH, T. M., and KUKSIS, A. "Fate of Intravenously Administered β -Sitosterol-22,23- H^3 in the Rat" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 140) (abstract no. 392).
- THOMPSON, W. "The Hydrolysis of Monophosphoinositide by Extracts of Brain" (*Canadian Journal of Biochemistry*, vol. 45, no. 6, June 1967, pp. 853-61).
- VONDERSCHMITT, D. J., and SCRIMGEOUR, K. G. "Reaction of Cu^{2+} and Fe^{3+} with Tetrahydropteridines" (*Biochemical and Biophysical Research Communications*, vol. 28, no. 3, Aug. 7, 1967, pp. 302-8).
- VONDERSCHMITT, D. J., VITOLS, K. S., HUENNEKENS, F. M., and SCRIMGEOUR, K. G. "Addition of Disulfite to Folate and Dihydrofolate" (*Archives of Biochemistry and Biophysics*, vol. 122, no. 2, Nov. 1967, pp. 488-93).
- WASI, S., and HOFMANN, T. "A pH-Dependent Conformational Change in Porcine Elastase" (*Biochemical Journal*, vol. 106, no. 4, Feb. 1968, pp. 926-7).
- WONG, J. T., *et al.* "The Regulation of Amino Acid-Specific tRNAs in *Escherichia coli*" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 149) (abstract no. 417).
- WONG, J. T., and WILLIAMS, G. R. "The Mechanism of Liver Alcohol Dehydrogenase" (*Archives of Biochemistry and Biophysics*, vol. 124, no. 1-3, March 20, 1968, pp. 344-8).
- WU, T. W., and TINKER, D. O. "Phospholipase A from *Crotalus atrox* Venom" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 104) (abstract no. 292).

MEDICAL BIOPHYSICS

- BECKER, H., LEBLANC, J. C., and JOHNS, H. E. "The UV Photochemistry of Cytidylic Acid" (*Photochemistry and Photobiology*, vol. 6, 1967, pp. 733-43).
- BORSA, J., and HUNT, J. W. "A Screening Technique for the Isolation of Bacterial Mutants Sensitive to Ionizing Radiation" (*Radiation Research*, vol. 34, 1968, pp. 128-37).
- BROWN, I. H., and JOHNS, H. E. "Mathematical Aspects of the UV Photochemistry of Pyrimidine Dinucleoside Phosphates" (*Photochemistry and Photobiology*, vol. 6, 1967, p. 469).
- BRUCE, W. R., and BERGSAGEL, D. E. "On the Application of Results from a Model System to the Treatment of Leukemia in Man" (*Cancer Research*, vol. 27, part 1, 1967, pp. 2646-9).
- BRUCE, W. R., VALERIOTE, F. A., and MEEKER, B. "Survival of Mice Bearing a Transplanted

- Syngeneic Lymphoma following Treatment with Cyclophosphamide, 5-Fluorouracil, or 1,3-Bis(2-chloroethyl)-1-nitrosourea" (*Journal of the National Cancer Institute*, vol. 39, 1967, pp. 257-66).
- CHOU, CHI-TAO, CINADER, B., and DUBISKI, S. "Allotypic Specificity and Hemolytic Capacity of Antibodies Produced by Single Cells" (*International Archives of Allergy and Applied Immunology*, vol. 32, 1967, pp. 583-616).
- "Quantitative Studies of Antibody Production by Plaque-Forming Cells" (*Cold Spring Harbor Symposia on Quantitative Biology*, vol. 32, 1967, pp. 317-31).
- CHOU, CHI-TAO, DUBISKI, S., and CINADER, B. "Cells as Antigen Carriers and as Immunoglobulin Producers. Synthesis of Antibody and Allogeneic Immunoglobulin after Transfer of Antigen-Treated Cells to New Born Rabbits" (*Journal of Experimental Medicine*, vol. 126, 1967, pp. 305-30).
- CINADER, B. "Antibody Specificity as a Factor in Enzyme-Inhibition and in the Classification of Inborn Metabolic Errors"; in *6th International Congress of Clinical Chemistry*, Munich, July 26-30, 1966, ed. O. Wieland, vol. 2, Clinical Enzymology, pp. 57-87. Basel, New York: F. W. Schmidt, Karger.
- "Enzyme Immunology - An Introduction" (*Behringwerk-Mitteilungen*, Heft 47, 1967, pp. 16-34).
- DEBOER, G., PEARSON, M., and JOHNS, H. E. "UV Photoproducts in Ordered Structures of Poly U and their Effects on Secondary Structure" (*Journal of Molecular Biology*, vol. 27, 1967, p. 131).
- EISEN, H. A., SIMINOVITCH, L., and MOHIDE, P. T. "Excision of Lambda Prophage: Effects on Host Survival" (*Virology*, vol. 34, 1968, p. 97).
- EISEN, H. E., TALLAN, I., and SIMINOVITCH, L. "Excision of the Lambda Prophage: Effects on Linkage Relationships of *Escherichia coli* Chromosome" (*Virology*, vol. 34, 1968, p. 104).
- FISHER, G. J., LEBLANC, J. C., and JOHNS, H. E. "A Calorimetric Determination of the Quantum Yield for the Ionization of MGL by UV Radiation" (*Photochemistry and Photobiology*, vol. 6, 1967, pp. 757-67).
- GOLD, M., and HURWITZ, J. "DNA Methylase from *Escherichia coli*"; in *Procedures in Nucleic Acid Research*, ed. G. L. Cantoni and David R. Davies, pp. 301-6. New York: Harper and Row, 1967.
- GREENSTOCK, C. L., and JOHNS, H. E. "Photosensitized Dimerization of Pyrimidines" (*Biochemical and Biophysical Research Communications*, vol. 30, no. 1, 1968, pp. 21-7).
- HARIHARAN, P., and JOHNS, H. E. "Rate Constants for Dehydration of Single and Double Hydrates of Cytidylyl (3'-5')-cytidine" (*Photochemistry and Photobiology*, vol. 7, 1968, pp. 239-52).
- HARIHARAN, P., POOLE, G., and JOHNS, H. E. "A Rapid Method for Locating and Eluting Radioactive Streaks on an Electropherogram or a Chromatogram" (*Journal of Chromatography*, vol. 32, 1968, pp. 356-63).
- HARRIS, A. W., MOUNT, D. W. A., FUERST, C. R., and SIMINOVITCH, L. "Mutations in Bacteriophage Lambda Affecting Host Cell Lysis" (*Virology*, vol. 32, 1967, pp. 553-69).
- HASKILL, J. S., and HUNT, J. W. "Radiation Damage to Crystalline Ribonuclease: Identification of the Physical Alterations by Gel Filtration on Sephadex"; "Importance of Free Radicals in the Formation of Denatured and Aggregated Products"; "Identification of Polypeptide Chain Breakage in the Denatured and Aggregated Products" (*Radiation Research*, vol. 31, 1967, pp. 327-42; vol. 32, pp. 606-24, 827-48).
- HUNT, J. W., and THOMAS, J. K. "Pulse Radiolysis Studies using Nanosecond Electron Pulses" (*Radiation Research*, vol. 32, 1967, pp. 149-63).
- JOHNS, H. E. "Photoproducts Produced in Nucleic Acids by Ultraviolet Light"; in *3rd International Congress on Radiation Research*, Cortina, Amsterdam: North Holland, 1967.
- JOHNS, H. E., and PEARSON, M. L. "UV Effects on Polynucleotides" (*7th Canadian Cancer Conference*, 1966, pp. 353-69).
- KEMP, C. L., and HOWATSON, A. F. "Action of Phospholipase C on Erythrocyte Membranes and Rauscher Virus" (*Virology*, vol. 30, 1966, p. 147).
- "Erythrocyte Surface Structure as Revealed by the Negative Stain Technique" (*Journal of Cell Biology*, vol. 31, 1966, p. 59A).
- LEUNG, P. M. K., and HUNT, J. W. "Electron Spin Resonance Spectra of Free Radicals in Irradiated Cyclohexanecarboxylic Acid" (*Journal of Physical Chemistry*, vol. 71, 1967, pp. 3177-86).
- LOFSKY, S., and HOWATSON, A. F. "Electron Microscopic Autoradiography of Hematopoietic Cells using Iron 55" (*University of Toronto Medical Journal*, vol. 43, 1966, p. 196).
- MADOC-JONES, H., and BRUCE, W. R. "Sensitivity of L Cells in Exponential and Stationary Phase to 5-Fluorouracil" (*Nature*, vol. 215, no. 5098, 1967, pp. 302-3).
- MUNROE, J. H., SHIBLEY, G. P., SCHIDLOVSKY, G., NAKAI, T., HOWATSON, A. F., et al. "Action of Snake Venom on Rauscher Virus" (*Journal of the National Cancer Institute*, vol. 40, 1968, pp. 135-45).
- NAKAI, T., and HOWATSON, A. F. "The Fine Structure of Vesicular Stomatitis Virus" (*Virology*, vol. 35, no. 2, June, 1968, pp. 268-81).
- READER, R. W., and STANNERS, C. P. "On the Significance of Ribosome Dimers in Extracts of Animal Cells" (*Journal of Molecular Biology*, vol. 28, 1967, p. 211).

- RIDER, W. D., and CINADER, B. "Immunotherapy for Trophoblastic Disease" (*International Cancer Congress*, Tokyo, 1966) (abstract).
- SARIN, P. S., and JOHNS, H. E. "UV Induced Conformational Changes in Transfer Ribonucleic Acid" (*Photochemistry and Photobiology*, vol. 7, 1968, pp. 203-10).
- SENN, J. S., McCULLOCH, E. A., and TILL, J. E. "Comparison of the Colony-Forming Ability of Normal and Leukaemic Human Marrow in Cell Culture" (*The Lancet*, vol. 2, Sept. 1967, pp. 597-8).
- SENN, J. S., TILL, J. E., SIMINOVITCH, L., and McCULLOCH, E. A. "Colony Formation *in vitro* from Single Cell Suspensions of Human Bone Marrow" (*Experimental Hematology*, vol. 13, 1967, pp. 24-6).
- SLY, W. S., EISEN, H. A., and SIMINOVITCH, L. "Host Survival following Infection with or Induction of Bacteriophage Lambda Mutants" (*Virology*, vol. 34, 1968, p. 112).
- STANNERS, C. P. "Polyribosomes of Hamster Cells: Transit Time Measurements" (*Biophysical Journal*, vol. 8, 1968, p. 231).
- TAYLOR, J. M., and STANNERS, C. P. "A Note on the Incorporation of Amino Acids by Hamster Embryo Cells in Monolayer Culture" (*Biochimica et Biophysica Acta*, vol. 138, 1967, p. 627).
- "The Synthesis of RNA by Mammalian Cells Treated with the Aminonucleoside of Puromycin" (*Biochimica et Biophysica Acta*, vol. 155, 1968, p. 424).
- TILL, J. E., and McCULLOCH, E. A. "Stem Cell Function Related to the Repair of Radiation Damage" (*Proceedings of the Brookhaven Symposium in Biology*, no. 20, June 5-7, 1967).
- TILL, J. E., McCULLOCH, E. A., PHILLIPS, R. A., and SIMINOVITCH, L. "Analysis of Differentiating Clones Derived from Marrow" (*Cold Spring Harbor Symposia on Quantitative Biology*, vol. 32, 1967, pp. 461-4).
- "Aspects of the Regulation of Stem Cell Function" (*Proceedings of the 21st Annual Symposium on Fundamental Cancer Research*, Houston, Texas, 1967).
- TSIEN, K. C., CUNNINGHAM, J. R., WRIGHT, D. J., JONES, D. E. A., and PFALZNER, P. M. *Atlas of Radiation Dose Distributions*, vol. III, *Moving-Field Isodose Charts*, pp. 1-168. Vienna: International Atomic Energy Agency, 1967.
- TURNER, R. W. A., SIMINOVITCH, L., McCULLOCH, E. A., and TILL, J. E. "Density Gradient Centrifugation of Hemopoietic Colony-Forming Cells" (*Journal of Cellular Physiology*, vol. 69, 1968, p. 73).
- VALERIOTE, F. A., and BRUCE, W. R. "Comparison of the Sensitivities of Hematopoietic Colony-Forming Cells in Different Proliferative States to Vinblastine" (*Journal of the National Cancer Institute*, vol. 38, 1967, pp. 393-9).
- VALERIOTE, F. A., BRUCE, W. R., and MEEKER, B. E. "Synergistic Action of Cyclophosphamide and 1,3-Bis(20-chloroethyl)-1-nitrosourea on a Transplanted Murine Lymphoma" (*Journal of the National Cancer Institute*, vol. 40, no. 5, 1968, pp. 935-44).
- VALERIOTE, F. A., COLLINS, D., and BRUCE, W. R. "Hematological Recovery in the Mouse following Single Doses of Gamma Radiation and Cyclophosphamide" (*Radiation Research*, vol. 33, 1968, pp. 501-11).
- WHITMORE, G. F., and GULYAS, S. "Recovery Processes in X-Irradiated Mammalian Cells"; in *Canadian Cancer Conference*, Honey Harbour, pp. 370-88. London, New York: Pergamon Press, 1967.
- WU, A. M., SIMINOVITCH, L., TILL, J. E., and McCULLOCH, E. A. "Evidence for a Relationship between Mouse Hemopoietic Stem Cells and Cells Forming Colonies in Culture" (*Proceedings of the National Academy of Sciences*, vol. 59, no. 4, 1968, pp. 1209-15).
- WU, A. M., TILL, J. E., SIMINOVITCH, L., and McCULLOCH, E. A. "Cytological Evidence for a Relationship between Normal Hemopoietic Colony-Forming Cells and Cells of the Lymphoid System" (*Journal of Experimental Medicine*, vol. 127, no. 3, 1968, pp. 455-64).
- "A Cytological Study of the Capacity for Differentiation of Normal Hemopoietic Colony-Forming Cells" (*Journal of Cellular Physiology*, vol. 69, no. 2, 1967, pp. 177-84).

MEDICINE

- ALDRIDGE, H. E., LANSDOWN, E. L., BIGELOW, W. C., *et al.* "Internal Mammary Artery Implantation for the Relief of Angina Pectoris. A Follow-up Study of 77 Patients for up to 13 Years" (*Canadian Medical Association Journal*, vol. 98, no. 4, Jan. 27, 1968, pp. 194-8).
- ALDRIDGE, H. E., and YAO, J. "Secundum Atrial Septal Defect in the Adult: Repair using Cardiopulmonary Bypass in 133 Patients" (*Canadian Medical Association Journal*, vol. 97, no. 6, Aug. 5, 1967, pp. 269-74).
- ARMSTRONG, J. B. "Perspectives of Overweight and Other Factors Related to Cardiovascular Disease" (*Canadian Journal of Public Health*, vol. 58, 1967, pp. 497-8).
- AUGER, P., and WIGLE, E. D. "Coarctation of the Aorta Associated with Severe Mitral Insufficiency" (*American Journal of Cardiology*, vol. 21, 1968, pp. 190-5).
- "Sudden, Severe Mitral Insufficiency" (*Canadian Medical Association Journal*, vol. 96, no. 23, June 10, 1967, pp. 1493-1503).

- BAIN, S. T., and SPAULDING, W. B. "The Importance of Coding Presenting Symptoms" (*Canadian Medical Association Journal*, vol. 97, no. 16, Oct. 14, 1967, pp. 953-9).
- BAUMAL, R., et al. "An Approach to the Study of Soluble Antigen-Antibody Complexes in Clinical Disease" (*University of Michigan, Medical Center Journal*, vol. 34, no. 1, 1968, pp. 30-6).
- BAUMAL, R., and BRODER, I. "Studies into the Occurrence of Soluble Antigen-Antibody Complexes in Disease. I. A. Biological Assay for Soluble Complexes; III. Rheumatoid Arthritis and Other Human Diseases" (*Clinical Experimental Immunology*, vol. 3, 1968, pp. 525-36, 555-69).
- BERGSAGEL, D. E. "The Chronic Leukemias: A Review of Disease Manifestations and the Aims of Therapy" (*Canadian Medical Association Journal*, vol. 96, no. 25, June 25, 1967, pp. 1615-20).
- BERGSAGEL, D. E., and PRUZANSKI, W. "The Clinical Expression and Treatment of Plasma Cell Neoplasia" (*Postgraduate Medicine*, vol. 43, May 1968, pp. 200-7).
- BERRIS, B. "Treatment of Diseases of the Liver" (*Applied Therapeutics*, vol. 10, no. 4, April 1968, p. 262).
- BERRIS, B., ROTHER, I., and ROSEN, P. S. "Telangiectases Simulating Hereditary Hemorrhagic Telangiectasia in Scleroderma: Report of Two Cases" (*Canadian Medical Association Journal*, vol. 96, 1967, pp. 1528-31).
- BHARGAVA, R. K., and WOOLF, C. R. "Changes in Diffusing Capacity after Bronchography" (*American Review of Respiratory Disease*, vol. 96, 1967, pp. 827-9).
- BRODER, I., et al. "Studies into the Occurrence of Soluble Antigen-Antibody Complexes in Disease. II. Criteria for Distinguishing Soluble Complexes from Other Macromolecular Histamine Releasers" (*Clinical Experimental Immunology*, vol. 3, 1968, pp. 537-53).
- CHESNIE, J. J. "Therapeutic Indications for the Use of Vitamin B₁₂ and Folic Acid in the Megaloblastic Anemias" (*Applied Therapeutics*, vol. 9, 1967, pp. 994-8).
- DUBISKI, S. "Suppression of the Synthesis of Allotypically Defined Immunoglobulins and Compensation by Another Subclass of Immunoglobulin" (*Nature*, vol. 214, no. 5095, June 1967, pp. 1365-6).
- "Synthesis of Allotypically Defined Immunoglobulins in Rabbits" (*Cold Spring Harbor Symposium on Quantitative Biology, XXXII, Antibodies*, 1967, pp. 311-16).
- DUBISKI, S., and MULLER, P. J. "A 'New' Allotypic Specificity (A9) of Rabbit Immunoglobulin" (*Nature*, vol. 214, no. 5089, May 1967, pp. 696-7).
- EAGLESON, W. M., et al. "The Effects of Heat on the Healing of Fractures" (*Canadian Medical Association Journal*, vol. 97, no. 6, Aug. 12, 1967, pp. 274-80).
- EDMEADS, J. G., et al. "Parasitic Diseases of the Nervous System in Thailand" (*Canadian Medical Association Journal*, vol. 98, no. 18, May 4, 1968, pp. 854-67).
- EZRIN, C., BRIANT, T. D. R., FIRESTONE, G., and ROSEN, F. "The Endocrine Aspects of Trans-sphenoidal Hypophysectomy" (*Canadian Medical Association Journal*, vol. 97, no. 2, July 8, 1967, pp. 72-5).
- FEINMAN, S. V. "Liver Disease - Etiological Aspects" (*Applied Therapeutics*, vol. 10, no. 4, April 1968, pp. 249-53).
- "Liver Disease - Clinical Diagnosis" (*ibid.*, pp. 254-6).
- FORSTNER, G. "Incorporation of (1-14C) Glucosamine by Rat Intestinal Microvillus Membrane" (*Biochimica et Biophysica Acta*, vol. 150, no. 4, June 1968, pp. 736-8).
- FORSTNER, G., et al. "Rat Intestinal Microvillus Membranes, Purification and Biochemical Characterization" (*Biochemical Journal*, vol. 106, no. 2, Jan. 1968, pp. 381-90).
- GORDON, D. A., et al. "Correlation between Rheumatoid Biologically Active Factor (RBAF) and Clinical Features of Rheumatoid Arthritis (RA)" (*Excerpta Medica International Congress Series No. 143*, vol. 25, Oct. 1967, abstract 41, p. 1; *Arthritis and Rheumatism*, vol. 10, June 1967, p. 266).
- GORDON, D. A., and OGRYZLO, M. A. "The University of Toronto Rheumatic Disease Unit Approach to Management of Rheumatoid Arthritis" (*South African Journal of Physiotherapy*, vol. 23, 1967, pp. 2-6).
- GORMAN, C. K., SALTER, J. M., et al. "Effects of Glucagon on Lipids and in Normal and Eviscerated Rats, and on Isolated Perfused Rat Livers" (*Metabolism*, vol. 16, 1967, pp. 1140-57).
- GREENWOOD, W. F. "Profile of Atrial Myxoma" (*American Journal of Cardiology*, vol. 21, 1968, pp. 367-75).
- GUAY, F. G., MACNAB, I., and YENDT, E. R. "Primary Hyperparathyroidism in Osteogenesis Imperfecta" (*Canadian Medical Association Journal*, vol. 98, no. 20, May 18, 1968, pp. 960-2).
- HALL, J. E. "An Operation Frame for Spinal Fusion: A New Apparatus Designed to Reduce Haemorrhage during Operation" (*Journal of Bone and Joint Surgery*, vol. 49B, 1967, pp. 327-32).
- HART, G. D. "The Confederation Worm Token" (*Canadian Medical Association Journal*, vol. 97, no. 1, July 1, 1967, pp. 39-40).
- "Treatment of Rh Hemolytic Disease by Passive Immunization" (*Applied Therapeutics*, vol. 9, 1967, pp. 372-4).
- HASSELBACK, R., et al. "The Influence of Morphology on Prognosis in Acute Leukemia" (*Canadian Medical Association Journal*, vol. 96, no. 25, June 24, 1967, pp. 1610-14).

- HILL, M. E., WORTZMAN, G., and MARSHALL, B. M. "The Clinical Use of Droperidol in Pneumoencephalography" (*Canadian Medical Association Journal*, vol. 98, no. 7, Feb. 17, 1968, pp. 359-61).
- "A Treatable Form of Dementia due to Normal-Pressure, Communicating Hydrocephalus" (*Canadian Medical Association Journal*, vol. 97, no. 22, Nov. 25, 1967, pp. 1309-20).
- HOUPT, J. B., and HASTINGS, D. "Surgery in Rheumatoid Arthritis" (*Journal of the Canadian Physiotherapy Association*, vol. 20, no. 2, April 1968, pp. 116-19).
- HOUPT, J. B., and OGRYZLO, M. A. "Tryptophan Metabolism in Rheumatoid Arthritis and Scleroderma" (*Arthritis and Rheumatism*, vol. 11, no. 1, Feb. 1968, p. 103) (abstract).
- HOVES, D. C., and WHERRETT, J. R. "The Occurrence of Inosine in Unwashed Lipid Extracts" (*Lipids*, vol. 3, no. 2, 1968, pp. 185-6).
- JUNG, M. A., SELBY, A., JOHNSON, J. R., BEANLANDS, D. S., and LENKEI, S. "The Value of a Cardiac Arrest Team in a University Hospital" (*Canadian Medical Association Journal*, vol. 98, no. 2, Jan. 13, 1968, pp. 74-8).
- KECHARANANTA, P., and WOOLF, C. R. "Active Pulmonary Tuberculosis in a Large General Hospital" (*Canadian Medical Association Journal*, vol. 98, no. 1, Jan. 6, 1968, pp. 30-3).
- KLEIN, S. W., MORCH, J. E., and MAHON, W. A. "Cardiovascular Effects of Glucagon in Man" (*Canadian Medical Association Journal*, vol. 98, no. 25, Dec. 22, 1968, pp. 1161-5).
- KOFMAN, O., and TASKER, R. "Ipsilateral and Focal Inhibitory Seizures" (*Neurology*, vol. 17, no. 11, Nov. 1967, pp. 1082-6).
- LAILAW, J. C. "Adrenal Cortical Insufficiency"; in *Current Therapy*, ed. H. F. Conn, pp. 412-14. Philadelphia: W. B. Saunders, 1968.
- LINTON, W. T. "Hair and Scalp" (*Applied Therapeutics*, vol. 10, no. 4, April 1968, pp. 265-8).
- "Syphilis Therapy" (*Applied Therapeutics*, vol. 9, 1967, p. 529).
- MACMILLAN, R. L., and BROWN, K. W. G. "Arrhythmias in Acute Myocardial Infarction" (editorial, *Canadian Medical Association Journal*, vol. 97, no. 12, Sept. 16, 1967, p. 752).
- MACMILLAN, R. L., BROWN, K. W. G., et al. "Changing Perspectives in Coronary Care - A Five Year Study" (*American Journal of Cardiology*, vol. 20, no. 4, 1967, pp. 451-6).
- MACMILLAN, R. L. (with Professor MONKHOUSE) "The Coagulation (Clotting) of Blood"; in *The Physiological Basis of Medical Practice*, 8th ed., ed. Charles H. Best and Norman B. Taylor, pp. 585-93. Baltimore: Williams & Wilkins, 1966.
- MCLLOY, W. J. "Symposium on Extrapyrarnidal Disease. Medical Aspects" (*Applied Therapeutics*, vol. 9, May 1967, pp. 451-3).
- MEINDOK, H. "Diagnostic Significance of Hypoalbuminemia" (*Journal of the American Geriatric Society*, vol. 15, Nov. 1967, pp. 1067-71).
- OGRYZLO, M. A. "Rheumatology - The New Horizon" (*University of Toronto Medical Journal*, vol. 45, 1968, pp. 86-7).
- "Systemic Lupus Erythematosus" (*The 3rd Pfizer International Symposium, Rheumatic Disease*, Edinburgh, May 17-19, 1967).
- OGRYZLO, M. A., GORDON, D. A., and SMYTHE, H. A. "The Rheumatic Disease Unit (R.D.U.) Concept" (*Arthritis and Rheumatism*, vol. 10, no. 5, 1967, pp. 479-85; *Journal of the Canadian Physiotherapy Association*, vol. 20, 1968, pp. 90-6).
- PARK, A. M. "Temporall Lobe Epilepsy" (*Canadian Family Physician*, vol. 14, no. 1, 1968, pp. 17-20).
- PARKS, A. E. "The Evolution of Canadian Medical Practice during the Last Century" (*Modern Medicine of Canada*, vol. 22, 1967, pp. 41-90).
- PERKIN, R. L. "General Practice" (editorial, *University of Toronto Medical Journal*, vol. 45, no. 4, Feb. 1968, pp. 124-5).
- "Medical Manpower in General Practice" (*Canadian Medical Association Journal*, vol. 97, no. 26, Dec. 23, 1967, pp. 1569-72).
- "Treatment of Disease versus Symptoms" (*Canadian Family Physician*, vol. 13, no. 8, Aug. 1967, pp. 24, 47).
- RICHARDSON, J. C. "Extrapyrarnidal Diseases" (guest editorial, *Applied Therapeutics*, vol. 9, no. 5, 1967, p. 429).
- "Treatment of Wilson's Disease" (*Modern Treatment*, vol. 5, no. 2, March 1968, pp. 321-31).
- ROW, V. V., KIM, R. H., EZRIN, C., and VOLPÉ, R. "Nature of Organic Iodinated Compounds in the Circulation of Euthyroid and Hyperthyroid Subjects Stimulated with Porcine Thyrotrophin" (*Journal of Clinical Endocrinology*, vol. 27, 1967, pp. 1674-81).
- SAMAD, I., SANDERS, D. E., SUERO, J. T., and WOOLF, C. R. "The Relationships between Tracheo-bronchial Collapse and Pulmonary Function in Chronic Obstructive Pulmonary Disease" (*Diseases of the Chest*, vol. 53, no. 4, April 1968, pp. 407-12).
- SAMAD, I., WOOD, D., SANDERS, D. E., SUERO, J. T., and WOOLF, C. R. "Comparison of Pulmonary Angiography and Intravenous Albumin Lung Scanning in Chronic Obstructive Pulmonary Emphysema" (*Diseases of the Chest*, vol. 53, June 1968, p. 571).
- SCHATZ, D. L., SHEPPARD, R. H., et al. "Thyroid Function Studies in Fasting Obese Subjects" (*Metabolism*, vol. 16, no. 12, Dec. 1967, pp. 1075-85).
- SENN, J. S., et al. "Colony Formation *in vitro* from Single Cell Suspensions of Human Bone Marrow" (*Experimental Hematology*, vol. 13, 1967, pp. 24-6).

- SENN, J. S., McCULLOCH, E. A., and TILL, J. E. "Comparison of the Colony-Forming Ability of Normal and Leukaemic Human Marrow in Cell Culture" (*The Lancet*, vol. 2, no. 7516, Sept. 16, 1967, pp. 597-8).
- SHUMAK, K. H., and BROWN, K. W. G. "Continuous Portable Electrocardiography" (*Canadian Medical Association Journal*, vol. 98, no. 3, Jan. 20, 1968, pp. 139-44).
- SILVERSIDES, J. L. "Senility and the Chronic Brain Syndrome" (*Ontario Medical Review*, vol. 34, 1967, pp. 689-91).
- SMYTHE, H. A. "Evaluation of Indomethacin in Ankylosing Spondylitis" (*Canadian Medical Association Journal*, vol. 97, no. 7, Aug. 12, 1967, p. 345).
- "Hydrocortisone Arthropathy" (editorial, *Canadian Medical Association Journal*, vol. 97, no. 8, Aug. 19, 1967, pp. 417-18).
- SMYTHE, H. A., and STEIN, J. "Nephrotic Syndrome Induced by Penicillamine" (*Canadian Medical Association Journal*, vol. 98, no. 10, March 9, 1968, pp. 505-7).
- STEINER, G. "Post-heparin Lipolytic Activity in Fat-Induced Hyperlipemia" (*Clinical Research*, vol. 15, 1967, p. 472).
- STEINER, G., DAVIDSON, J. K., and ASHWORTH, M. A. "Endogenous Chylomicronemia following Pancreatectomy" (*Diabetes*, vol. 17, supp. 1, 1968, pp. 345-6).
- STEINER, G., and SCHÖNBAUM, E. "Effects of Immun sympathectomy on the Metabolic Response of Adipose Tissue and Liver to Cold-Acclimation" (*Federation Proceedings*, vol. 27, 1968, p. 699).
- "Lipid Metabolism in Immun sympathectomized Rats" (International Congress of the International Diabetes Federation, *VI Excerpta Medica International Congress*, series 140, abstract 404, 1967, p. 165).
- STEINER, G., SCHÖNBAUM, E., JOHNSON, G. E., and SELLERS, E. A. "Lipid Metabolism: Effects of Immun sympathectomy and Acclimation to Cold" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, May 1968, pp. 453-61).
- SUERO, J. T., and WOOLF, C. R. "An Equation for Calculating 'Derived' Acid-Base Parameters" (*Canadian Journal of Physiology and Pharmacology*, vol. 45, 1967, pp. 891-5).
- TAYLOR, W. J. R., and WOOLF, C. R. "A Comparative Evaluation of Nikethamide, Prethcamid and Caffeine as Respiratory Stimulants in Patients with Chronic Chest Disease, Mostly Emphysema" (*International Journal of Clinical Pharmacology, Therapy and Toxicology*, vol. 2, 1967, pp. 92-100).
- VARADI, D. P. and SAQUETON, A. S. "Elastase from Staphylococcus Epidermidis" (*Nature*, vol. 218, no. 5140, May 4, 1968, pp. 468-70).
- VOLPÉ, R. "Tests of Thyroid Function" (editorial, *Canadian Medical Association Journal*, vol. 97, no. 1, July 1, 1967, p. 32).
- "Treatment of Hyperthyroidism" (editorial, *Canadian Medical Association Journal*, vol. 98, no. 9, March 2, 1968, p. 462).
- VOLPÉ, R., KNOWLTON, T. G., FOSTER, A. D., and CONEN, P. E. "Testicular Feminization: A Study of Two Cases, One with a Seminoma" (*Canadian Medical Association Journal*, vol. 98, no. 9, March 2, 1968, pp. 438-45).
- VOLPÉ, R., ROW, V. V., and EZRIN, C. "Viral and Thyroid Antibodies in Subacute Thyroiditis" (*Journal of Clinical Endocrinology*, vol. 27, 1967, pp. 1275-84).
- WALFISH, P. G. "Diazoxide and Treatment of Hypoglycemia" (*Annals of New York Academy of Sciences*, vol. 150, no. 2, April 1968, pp. 254-5, 279).
- "Insulin-¹³¹I Disappearance Rates following Diazoxide, Epinephrine and Glucose Administration" (*ibid.*, pp. 292-3).
- WALFISH, P. G., *et al.* "Role of Adrenergic Receptors and Prandial State in the Metabolic Effects of Diazoxide in Rats" (*Diabetes*, vol. 17, supp. 1, June 1968, p. 349) (abstract).
- WEBSTER, B. R., BRITTON, A., VOLPÉ, R., and EZRIN, C. "Studies on the Acute Disappearance of Thyroxine" (*Acta Endocrinologica*, vol. 55, 1967, pp. 497-521).
- WHERRETT, J. R. "Current Views on the Nature of Cell Membranes" (*Bulletin of the Academy of Medicine*, vol. 40, no. 8, 1967, pp. 146-53).
- WIGLE, E. D., ADELMAN, A. G., MARQUIS, Y., and AUGER, P. "Mitral Regurgitation in Muscular Subaortic Stenosis" (*Clinical Research*, vol. 16, no. 2, April 1968, p. 253) (abstract).
- WIGLE, E. D., BEDARD, P. *et al.* "Nature of Intraventricular Pressure Differences Induced by Pharmacological Agents in Dogs" (*American Heart Journal*, vol. 74, no. 5, Nov. 1967, pp. 652-62).
- WIGLE, E. D., MARQUIS, Y., and AUGER, P. "Muscular Subaortic Stenosis: Initial Left Ventricular Inflow Tract Pressure in the Assessment of Intraventricular Pressure Differences in Man; the Direct Relation between the Intraventricular Pressure Difference and the Left Ventricular Ejection Time" (*Circulation*, vol. 35, no. 6, June 1967, pp. 1100-17; vol. 36, no. 1, July 1967, pp. 36-44).
- "Pharmacodynamics of Mitral Insufficiency in Muscular Subaortic Stenosis" (*Canadian Medical Association Journal*, vol. 97, no. 6, Aug. 5, 1967, pp. 299-301).
- WILKINS, G. E., *et al.* "The Effect of Thyroxin on Thyroid Tumor Induction" (*Annals of the Royal College of Physicians and Surgeons of Canada*, Jan. 1968, p. 10).
- WILLIAMS, M. G. "Viral Diseases" (*Modern Trends in Dermatology*, vol. 3, 1966, pp. 196-221).
- WILSON, D. R., *et al.* "Glycerol Induced Hemoglobinuric Acute Renal Failure in the Rat.

- III. Micropuncture Study of the Effects of Mannitol and Isotonic Saline on Individual Nephron Function" (*Nephron*, vol. 4, 1967, pp. 337-55).
- "In vivo Dialysis of Faeces as a Method of Stool Analysis. III. The Effect of Intestinal Antibiotics" (*Clinical Science*, vol. 34, 1968, pp. 211-21).
- WOOLF, C. R. "The Organization of a Hospital Routine Pulmonary Function Laboratory" (*Canadian Medical Association Journal*, vol. 98, no. 11, March 16, 1968, pp. 542-9).
- "The Physiology of Pulmonary Embolism" (*Bulletin of the Academy of Medicine*, vol. 40, 1967, pp. 138-41).
- Review, *Canadian Medical Association Journal*, vol. 98, no. 10, March 9, 1968, p. 520.
- WRONG, N. M. "Dermatological Problems of the Adolescent" (*Canadian Family Physician*, vol. 13, no. 7, 1967, pp. 23-4, 29).
- YENDT, E. R., and GAGNE, R. J. A. "Detection of Primary Hyperparathyroidism with Special Reference to its Occurrence in Hypercalciuric Females with 'Normal' or Borderline Serum Calcium" (*Canadian Medical Association Journal*, vol. 98, no. 7, Feb. 17, 1968, pp. 331-6).
- ZSOTER, T. T. "The Effect of Aminophylline and Isoproterenol on Venous Distensibility" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, 1968, p. 225).
- ZSOTER, T. T., and TOM, H. "Adrenoceptive Sites in the Veins" (*British Journal of Pharmacology and Chemotherapy*, vol. 31, 1967, p. 407).

OBSTETRICS AND GYNAECOLOGY

- BORTH, R. "Endocrinology of the Human Menstrual Cycle: Opinions and Hypotheses" (*Vitamins and Hormones*, vol. 25, 1967, pp. 123-35).
- "Gonadotrophin-Steroid Interrelationships"; in *Proceedings of the 5th World Congress of Gynecology and Obstetrics*, Sydney, Australia, 1967, pp. 230-9.
- BORTH, R. (with MENZI, A.) "Performance of the Augmentation Test for FSH Activity under Various Conditions", "Performance of OAAD Test under Various Conditions", and "Performance of Ovarian Hyperaemia Test"; in *Recent Research on Gonadotrophic Hormones*, ed. E. T. Bell and J. A. Loraine, pp. 5-7, 38-41, 56-7. Edinburgh: E. & S. Livingstone, 1967.
- BORTH, R., et al. "Collaborative Study of Assay Methods for HCG in Serum" and "Concentration of HCG in Amniotic Fluid in Early Pregnancy"; in *Recent Research on Gonadotrophic Hormones*, ed. E. T. Bell and J. A. Loraine, pp. 77-83, 87-88. Edinburgh: E. & S. Livingstone, 1967.
- "Urinvolumen und Ausscheidung von Kreatinin, 17-Ketosteroiden und 17-Hydroxycorticosteroiden während experimenteller Änderung der Flüssigkeitsaufnahme" (*Zeitschrift für klinische Chemie und klinische Biochemie*, vol. 6, 1968, pp. 6-11).
- COHEN, S. L. "The Role of Ammonium Sulphate Precipitation in the Removal of Substances which Interfere with Enzymatic Hydrolysis of Conjugated Estrogens in Pregnancy Urine" (*Canadian Journal of Biochemistry*, vol. 46, June 1968, pp. 563-71).
- DORAN, T. A., and THOMPSON, D. W. "Endometrial Cytologic Study in Asymptomatic Postmenopausal Patients" (*American Journal of Obstetrics and Gynecology*, vol. 100, no. 4, Feb. 15, 1968, pp. 490-500).
- GARE, D. J., WHETHAM, J. C. G., and HENRY, J. D. "The Validity of Scalp Sampling" (*American Journal of Obstetrics and Gynecology*, vol. 99, no. 5, Nov. 1, 1967, pp. 722-4).
- GOODWIN, J. W. "The Impact of the Umbilical Circulation on the Fetus" (*American Journal of Obstetrics and Gynecology*, vol. 100, no. 4, Feb. 15, 1968, pp. 461-71).
- GOODWIN, J. W., MAHON, W. A., and REID, D. W. J. "The Effect of Graded Reductions of Umbilical Blood Flow on Left and Right Ventricular Outputs in the Foetal Lamb" (*Circulation Research*, vol. 22, May 1968, pp. 595-604).
- MILLIGAN, J. E., et al. "The Effect of Pretreatment with Pentobarbital, Meperidine or Hyperbaric Oxygen on the Response to Anoxia and Resuscitation in Newborn Rabbits" (*Journal of Pediatrics*, vol. 72, no. 4, 1968, pp. 518-28).
- "Neural Control of Pulmonary Circulation in the Fetal Lamb as Studied by a Cross-circulation Technique" (*Circulation*, vol. 36, no. 4, supp. II, Oct. 1967, p. 80) (abstract).
- "Pulmonary Vasoconstriction in Asphyxia during Cross-circulation between Twin Fetal Lambs" (*Journal of Physiology*, vol. 192, 1967, pp. 111-21).
- "Vasomotor Responses in the Hindlimb Circulation of Fetal Lambs" (*Circulation*, vol. 36, no. 4, supp. II, Oct. 1967, p. 96) (abstract).
- "Vasomotor Responses in the Hindlimb of Newborn Calves" (*Circulation Research*, vol. 21, Aug. 1967, pp. 237-44).
- "Vasomotor Responses in the Hindlimb of Newborn Calves" (*Proceedings of the Canadian Federation of Biological Sciences*, July 1967, p. 25) (abstract).
- "Vasomotor Responses in the Hindlimbs of Fetal and Newborn Lambs to Asphyxial and Aortic Chemoreceptor Stimulation" (*Journal of Physiology*, vol. 195, 1968, pp. 55-81).
- ORGAN, L. W. "The Fetal Electrocardiogram in a Case of Conjoined Twins" (*Canadian Medical Association Journal*, vol. 97, no. 2, July 8, 1967, pp. 69-71).

- "Scalp Lead Fetal Electrocardiography" (*Canadian Medical Association Journal*, vol. 98, no. 4, Jan. 27, 1968, pp. 199-204).
- PAUL, W. M., GARE, D. J., and WHETHAM, J. C. G. "Assessment of Fetal Scalp Sampling in Labor" (*American Journal of Obstetrics and Gynecology*, vol. 99, no. 6, Nov. 15, 1967, pp. 745-53).
- WILSON, R. "Thromboembolic Disease and Oral Contraceptives" (editorial, *Canadian Medical Association Journal*, vol. 97, no. 5, Aug. 5, 1967, pp. 302-3).
- WILSON, R., et al. "Family Planning in a Co-ordinated Hospital and Community Health Setting" (*Canadian Journal of Public Health*, vol. 58, no. 12, Dec. 1967, pp. 527-34).

OPHTHALMOLOGY

- BASU, P. K. "Basic Research in the Problems of Old Age" (*Pakistan Journal of Geriatrics*, Jan. 1967, pp. 4-5).
- "Experimental Studies on Corneal Graft Reaction" (*Indian Journal of Ocular Pathology*, vol. 1, no. 1, Dec. 1967, pp. 32-9).
- "Opening of New Research Laboratories" (*Canadian Journal of Ophthalmology*, vol. 2, no. 4, Oct. 1967, pp. 303-6).
- BASU, P. K., and FIELDING, I. L. "Immune Reaction and the Lysis of Corneal Cells *in vitro* and *in vivo*" (*Canadian Journal of Ophthalmology*, vol. 2, no. 2, April 1967, pp. 122-9).
- CRAIG, B. J., and MACDONALD, R. K. "The Effect of Tonography on the Paired Weight Measurement of Ocular Rigidity" (*Canadian Journal of Ophthalmology*, vol. 2, no. 3, July 1967, pp. 185-9).
- CRAWFORD, J. S. "The Timing of Surgery in Strabismus" (*Bulletin of the Hospital for Sick Children*, vol. 17, second quarter, 1967, pp. 5-6).
- Feldman, F., and HILL, J. C. "Tissue Barrier Modifications of a Wheeler II Operation for Entropion" (*Archives of Ophthalmology*, vol. 78, no. 5, Nov. 1967, pp. 621-3).
- HAUSLER, H. R. "Diabetic Retinopathy: Newer Concepts of its Pathology and Treatment" (*International Ophthalmology Clinics*, vol. 7, no. 1, spring 1967, pp. 39-56).
- HILL, J. C. "Recent Advances in Ophthalmic Plastic Surgery" (*International Ophthalmology Clinics*, vol. 7, no. 1, spring 1967, pp. 135-55).
- KAZDAN, J. J. (with SCHACTER, J., and OKUMOTO, M.) "Inclusion Conjunctivitis in the Guinea Pig" (*American Journal of Ophthalmology*, vol. 64, no. 1, July 1967, pp. 116-24).
- LIDY, B. ST. L., CARR, K., and MCCULLOCH, C. "Aphakic, Rehabilitation" (*American Journal of Ophthalmology*, vol. 63, no. 6, June 1967, pp. 1793-5).
- MACDONALD, D'ARCY. "Aids for the Partially Sighted" (*International Ophthalmology Clinics*, vol. 7, no. 1, spring 1967, pp. 217-30).
- MACRAE, H. M., and NEWBIGIN, B. "Von Hippel-Lindau Disease: A Family History" (*Canadian Journal of Ophthalmology*, vol. 3, no. 1, Jan. 1968, pp. 28-34).
- MCCULLOCH, C. "Surgery of Filtering Blebs" (*International Ophthalmology Clinics*, vol. 7, no. 1, spring 1967, pp. 125-34).
- PASHBY, T. J., and MACDONALD, R. K. "Medical Control of Steroid-Induced Glaucoma" (*Canadian Journal of Ophthalmology*, vol. 2, no. 3, July 1967, pp. 181-4).
- RAFUSE, E. V., ARSTIKAITIS, M., and BRENT, H. P. "Ocular Findings in Thalidomide Children" (*Canadian Journal of Ophthalmology*, vol. 2, no. 3, July 1967, pp. 222-5).
- SHEA, M. "Complications of Cryotherapy in Retinal Detachment Surgery" (*Canadian Journal of Ophthalmology*, vol. 3, no. 1, April 1968, pp. 109-15).
- "Cryosurgery of Vitreous and Retina" (*International Ophthalmology Clinics*, vol. 7, no. 1, spring 1967, pp. 2-18).
- "A Microprobe for Intraocular Surgery" (*Canadian Journal of Ophthalmology*, vol. 2, no. 3, July 1967, pp. 163-8).
- SMITH, D. R., and SHEA, M. "The Effect of Sub-freezing Temperature on Rabbit Corneal Epithelium" (*Canadian Journal of Ophthalmology*, vol. 2, no. 3, July 1967, pp. 153-7).
- SMITH, D. R., SOMERVILLE, G. M., and SHEA, M. "An Experimental Model of Epithelialization of the Anterior Chamber" (*Canadian Journal of Ophthalmology*, vol. 2, no. 3, July 1967, pp. 158-62).
- SPEAKMAN, J. S. (with LEESON, T. J.) "The Pathogenesis of Chronic Simple Glaucoma" (*International Ophthalmology Clinics*, vol. 7, no. 1, spring 1967, pp. 85-101).
- STEIN, H. A., and SLATT, B. *Aseptic Technique, Sterilization of Instruments and Minor Office Surgery. Home Study Course for Ophthalmic Assistants*. Washington: American Association of Ophthalmology, 1967. Pp. 25.
- THOMPSON, G. A. "Eye Bank of Canada" (*The Canadian Nurse*, vol. 64, no. 5, May 1968, pp. 50-1).
- "The Eye Bank of Canada" (*Ontario Medical Review*, vol. 34, no. 9, Sept. 1967, pp. 575-6, 584).
- ZUCKER, B., and BASU, P. K. "The Cytology of Conjunctival Sac Fluid in the Corneal Graft Reaction" (*Canadian Journal of Ophthalmology*, vol. 3, no. 2, April 1968, pp. 128-31).

OTOLARYNGOLOGY

- BARBER, H. O., BASSER, W., JOHNSON, W. H., and TAKAHASHI, P. "Laboratory Assessment of Anti-motion Sickness and Anti-vertigo Drugs" (*Canadian Medical Association Journal*, vol. 97, Dec. 9, 1967, pp. 1460-6).
- BARBER, H. O., and WRIGHT, G. W. "Release of Nystagmus Suppression in Clinical Electronystagmography" (*Laryngoscope*, vol. 77, no. 6, June 1967, pp. 1016-27).
- BRIANT, T. D. R. "Hypophysectomy" (*Laryngoscope*, vol. 77, no. 4, April 1968, pp. 649-50).
- BRIANT, T. D. R., and SNELL, D. "Diagnosis of Cerebral Spinal Rhinorrhea and the Rhinologic Approach to its Repair" (*Laryngoscope*, vol. 77, no. 8, Aug. 1967, pp. 1390-1409).
- BROSNAN, M. L. "Primary Cholesteatomas of the Temporal Bone" (*Archives of Otolaryngology*, vol. 86, no. 4, Oct. 1967, p. 363).
- BRYCE, D. P., and DAYAL, V. S. "Surgical Management of Carcinoma of the Larynx" (*Applied Therapeutics*, vol. 10, no. 3, March 1968, pp. 179-82).
- BRYCE, D. P., and LAWSON, V. G. "Trough Method of Laryngotracheal Reconstruction" (*Annals of Otolaryngology, Rhinology and Laryngology*, vol. 76, no. 4, Oct. 1967, pp. 793-803).
- JOHNSON, W. H., SMITH, J. B., and SULLIVAN, J. "Assessment of Vestibular Sensitivity" (*Annals of Otolaryngology, Rhinology and Laryngology*, vol. 76, no. 3, Aug. 1967, pp. 709-15).
- NITO, Y., JOHNSON, W. H., and IRELAND, P. E. "Positional Alcohol Nystagmus in the Cat" (*Annals of Otolaryngology, Rhinology and Laryngology*, vol. 77, no. 1, Feb. 1968, pp. 111-25).
- NOVEK, A. M. "Cysts and Benign Tumours of the Sinuses"; in *Textbook on Seminars in Radiology, Symposium on Parnoid Sinuses*, ed. Benjamin Felson, pp. 170-202. New York: Stratten, 1968.
- SMITH, J. K. B. "Facial Palsy and its Management" (*Ontario Medical Review*, vol. 35, no. 4, April 1968, pp. 197-8).

PAEDIATRICS

- BAIN, H. W., and EHRLICH, R. M. "Hyperosmolar Non-ketotic Coma" (*The Lancet*, vol. 2, no. 7528, Dec. 9, 1967, p. 1258).
- CHOI, S. I., and MCCLURE, P. D. "Idiopathic Thrombocytopenic Purpura in Childhood" (*Canadian Medical Association Journal*, vol. 97, no. 10, Sept. 9, 1967, pp. 562-8).
- COLLINS-WILLIAMS, C. "The Allergist and the Future of Allergy" (editorial, *Annals of Allergy*, vol. 26, 1968, pp. 44-5).
- *Pediatric Allergy: Notes and Suggested Readings for Medical Students*, 1st ed. Toronto: University of Toronto Press, 1967. Pp. 133.
- "Rhinitis"; in *Current Paediatric Therapy*, ed. S. S. Gellis and B. M. Kagan. Philadelphia: Saunders, 1968.
- COLLINS-WILLIAMS, C., and HUGHES, K. M. "Treatment of the Acutely Ill Asthmatic Child" (*Annals of Allergy*, vol. 26, March 1968, pp. 117-25).
- COLLINS-WILLIAMS, C., TOFT, B., GENEROSO, L., and MOSCARELLO, M. "Quantitative Immunoglobulin Levels (IgG, IgA and IgM) in Children Determined by the Hyland Immunoplate Technique" (*Canadian Medical Association Journal*, vol. 96, no. 23, June 10, 1967, pp. 1510-13).
- COLLINS-WILLIAMS, C., TOFT, B., and MOSCARELLO, M. "Serum Protein Studies in Intractable Asthma" (*Journal of Asthma Research*, vol. 4, June 1967, pp. 283-7).
- DARTE, J. M. M. "Hodgkin's Disease in Children" (*American Journal of Roentgenology, Radium Therapy and Nuclear Medicine*, vol. 100, no. 1, 1967, pp. 222-6).
- EHRLICH, R. M., and MARTIN, J. "Tolbutamide Tolerance Test and Plasma-Insulin Response in Children with Idiopathic Hypoglycemia" (*Journal of Pediatrics*, vol. 71, no. 4, Oct. 1967, pp. 485-93).
- EHRLICH, R. M., MARTIN, J., and BAIN, H. W. "Comment on Management of Hypoglycemia" (editorial, *Journal of Pediatrics*, vol. 71, no. 4, Oct. 1967, pp. 621-2).
- FLEMING, P. C., KRIEGER, E., TURNER, J. A. P., WATTY, E. I., QUINN, P. A., and BANNATYNE, R. M. "Febrile Mucocutaneous Syndrome with Respiratory Involvement Associated with Isolation of Mycoplasma Pneumoniae" (*Canadian Medical Association Journal*, vol. 97, no. 23, Dec. 9, 1967, pp. 1458-9).
- FOWLER, R. S. "Terminal Conduction Delay in Pulmonary Stenosis in Children" (*American Heart Journal*, vol. 21, 1968, pp. 669-72).
- FOWLER, R. S., and KEITH, J. D. "Electrocardiogram in Pulmonary Stenosis - A Reappraisal" (*Canadian Medical Association Journal*, vol. 98, no. 10, March 9, 1968, pp. 433-8).
- FOWLER, R. S., O'BEIRNE, H., EDIBAM, B., and KEITH, J. D. "Use of the Digital Computer in Electrocardiographic Studies" (*Canadian Medical Association Journal*, vol. 98, no. 2, Jan. 13, 1968, pp. 107-8).
- FRASER, D. "The Relation between Infantile Hypercalcemia and Vitamin D - Public Health Implications in North America" (*Pediatrics*, vol. 40, Dec. 1967, pp. 1050-61).

- FRASER, D. (with KOOH, S. W., and SCRIVER, C. R.) "Hyperparathyroidism as the Cause of Hyperaminoaciduria and Phosphaturia in Human Vitamin D Deficiency" (*Pediatric Research*, vol. 1, Nov. 1967, pp. 425-35).
- GAGLIARDINO, J. J. "Physiological Variations of Insulin Output in Urine" (*Metabolism*, vol. 17, Feb. 1968, pp. 139-47).
- GAGLIARDINO, J. J., BAILEY, J. D., and MARTIN, J. M. "Effect of Vasopressin on Serum Levels of Human Growth Hormone" (*The Lancet*, vol. 1, no. 7504, June 24, 1967, pp. 1357-8).
- HACKNEY, I. M. (with HANLEY, W. B., DAVIDSON, W., and LINSAO, L.) "Phenylketonuria: Mental Development, Behaviour and Termination of Low Phenylalanine Diet" (*Journal of Pediatrics*, vol. 72, no. 5, May 1968, pp. 646-55).
- HAKA, K. K. "Diagnostic Approaches to Mental Retardation" (*Clinical Proceedings, Children's Hospital, D.C.*, vol. 23, no. 8, Sept. 1967).
- HAMILTON, J. R., RADDE, I. C., and JOHNSON, G. "Diarrhea Associated with Adrenal Ganglioneuroma" (*American Journal of Medicine*, vol. 44, March 1968, pp. 453-63).
- "Infusion of Lactic Acid into the Rat Small Intestine" (*Pediatric Research*, vol. 1, Sept. 1967, pp. 341-53).
- HAWKE, W. A. "Feeding and Emotions" (*Journal of the Canadian Dietetic Association*, vol. 29, no. 1, March 1968, p. 26).
- "The Hyperactive Child" (*Chatelaine*, April 1968).
- "Learning Problems in Children" (*Muscular Dystrophy Reporter*, summer 1967).
- KHOURY, G. H., and FOWLER, R. S. "Vectorcardiographic Patterns of Unusual Conduction Disturbances in Infancy and Childhood" (*American Heart Journal*, vol. 75, 1968, pp. 147-52).
- KIDD, B. S. L. "Haemodynamic Effects of Propranolol and Isoproterenol in the Anaesthetised Dog" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, July 1967, p. 60).
- KIDD, B. S. L., and PRICHARD, J. S. "Breath-Holding Spells" (*Pediatrics*, vol. 40, Aug. 1967, p. 306).
- KIDD, B. S. L., ROSE, V., COLLINS, G., COGGIN, J., and KEITH, J. D. "The Haemodynamic Spectrum of Congenital Left-to-Right Shunts in Childhood" (*Annals of the Royal College of Physicians and Surgeons of Canada*, vol. 1, Jan. 1968, p. 28).
- KOOH, S. W., and FRASER, D. "Experimental Parathyroid Hormone Deficiency Produced by Injection of Antibodies to Bovine Parathyroid Hormone" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, May 1968, pp. 441-8).
- LOWDEN, J. A., LARAMEE, M. A., and WENTWORTH, P. "The Subacute Form of Niemann-Pick Disease" (*Archives of Neurology*, vol. 17, Sept. 1967, pp. 230-7).
- MARK, P. H., and TURNER, J. A. P. "Lung Abscess in Childhood" (*Thorax*, vol. 23, March 1968, pp. 216-20).
- OLLEY, P. M., NESBITT, H. I. A., and KIDD, B. S. L. "The Role of Adrenergic Receptors in Hypoxia-Induced Pulmonary Vasoconstriction" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 11, June 1968, p. 128).
- PRICHARD, J. S., et al. *Health, Science and You*, Book I, Book II, Book III. Toronto: Holt, Rinehart & Winston, 1967. Pp. 224, 200, 179.
- RASTOGI, R. N., PRICHARD, J. S., and LOWDEN, J. A. "Elevation of Phosphorus Levels in Serum and Decreased Brain Content of Gangliosides in Rats following Neonatal Asphyxia" (*Pediatric Research*, vol. 2, March 1968, pp. 125-30).
- RUSSELL, E. S., THOMPSON, M. W., and MCFARLAND, E. C. "Analysis of Effects of W and f Genic Substitutions on Fetal Mouse Hematology" (*Genetics*, vol. 58, 1968, pp. 259-70).
- SASS-KORTSAK, A., FIGICI, S., PAUNIER, L., KOOH, S. W., FRASER, D., and JACKSON, S. H. "Clinical and Biochemical Study of Three Patients with Tyrosyluria" (*Canadian Medical Association Journal*, vol. 97, no. 18, Oct. 28, 1967, pp. 1056-8).
- "Observations on Treatment in Patients with Tyrosyluria" (*ibid.*, pp. 1089-93).
- "Secondary Metabolic Derangements in Patients with Tyrosyluria" (*ibid.*, pp. 1079-84).
- SHAH, P. M., and KIDD, B. S. L. "Circulatory Effects of Propranolol in Children with Fallot's Tetralogy. Observations with Isoproterenol Infusion, Exercise and Crying" (*American Journal of Cardiology*, vol. 19, 1967, pp. 653-7).
- SHAHER, R. M., and KIDD, B. S. L. "The Effect of Ventricular Septal Defect and Patent Ductus Arteriosus on Left Ventricular Pressure in Complete Transposition of the Great Vessels" (*Circulation*, vol. 37, Feb. 1968, pp. 232-7).
- SWYER, P. R., and LEVISON, H. "Pathophysiology and Management of Bronchiolitis" (*Anaesthesiology*, vol. 29, May-June 1968, pp. 403-5).
- THOMPSON, M. W. "The Application of Bayesian Methods to Genetic Counselling in Duchenne Muscular Dystrophy" (*Canadian Journal of Genetics and Cytology*, vol. 9, 1967, p. 665).
- "Genetics and Genetic Counselling" (*Medical Services Journal of Canada*, vol. 23, 1967, pp. 634-9).
- Review, *Canadian Medical Association Journal*, vol. 97, no. 1, July 1, 1967, p. 47.
- THOMPSON, M. W., MURPHY, E. G., and MCALPINE, P. J. "Assessment of the Creatinine

- Kinase Test in the Detection of Carriers of Duchenne Muscular Dystrophy" (*Journal of Pediatrics*, vol. 71, July 1967, pp. 82-93).
- VIRMANI, S., and KIDD, B. S. L. "Shunt Timing in Congenital Heart Disease with a Fiberoptic Catheter" (*Canadian Medical Association Journal*, vol. 98, no. 2, Jan. 13, 1968, p. 105).
- WENG, T. R., LEVISON, H., WENTWORTH, P., SIMPSON, J., and MOES, C. A. F. "Open Lung Biopsy in Children" (*American Review of Respiratory Diseases*, vol. 97, no. 678, April 1968, pp. 673-84).
- WILKES, F. C. D., OWEN-THOMAS, J. B., SWYER, P. R., and CONN, A. W. "Evaluation of a Respirometer for Neonates" (*British Journal of Anaesthesia*, vol. 40, 1968, pp. 61-3).
- WITTERMAN, E. R., PENSUWAN, S., and RADDE, I. C. "Effect of Experimental Osteoporosis on Radioactive and Stable Calcium in Plasma and Tissues of Rats" (*Proceedings of Canadian Federation of Biological Societies*, vol. 10, 1967, p. 112).
- YAO, J., THOMPSON, M. W., TRUSLER, G. A., and TRIMBLE, A. S. "Familial Atrial Septal Defect of the Primum Type; a Report of Four Cases in One Sibship" (*Canadian Medical Association Journal*, vol. 98, no. 4, Jan. 27, 1968, pp. 218-19).

PATHOLOGICAL CHEMISTRY

- BJERRE, S. "Determination of Abnormal Hemoglobin Pigments by Spectrophotometry" (*Clinical Biochemistry*, vol. 1, no. 4, April 1968, pp. 299-310).
- BJERRE, S., and KITA, R. "Determination of Neutral 17-Oxysteroids with Hydroxide of Hyamine 10-X in the Zimmerman Reaction" (*Clinical Chemistry*, vol. 13, Sept. 1967, pp. 717-34).
- CHOU, C.-T., CINADER, B., and DUBISKI, S. "Allotypic Specificity and Hemolytic Capacity of Antibodies Produced by Single Cells" (*International Archives of Allergy and Applied Immunology*, vol. 32, no. 6, Dec. 1967, pp. 583-616).
- "Quantitative Studies of Antibody Production by Plaque-Forming Cells" (*Cold Spring Harbor Symposia on Quantitative Biology*, vol. 32, 1967, pp. 317-31).
- CHOU, CHI-TAO, DUBISKI, S., and CINADER, B. "Cells as Antigen Carriers and as Immunoglobulin Producers" (*Journal of Experimental Medicine*, vol. 126, no. 2, Aug. 1, 1967, pp. 305-30).
- CINADER, B. "Enzyme Immunology - An Introduction" (*Behringwerk-Mitteilungen*, Heft 47, 1967, pp. 16-34).
- "Immunochemistry"; in *Encyclopaedia of Biochemistry*, ed. Roger J. Williams and Edwin M. Lansford, Jr., pp. 427-38. New York: Reinhold Publishing Corporation, 1967.
- FEUER, G. "Studies on the Metabolism of ³²P-Labelled YN Emulsifier" (*Food and Cosmetics Toxicology*, vol. 5, Nov. 1967, pp. 631-43).
- FEUER, G., and GOLBERG, L. "Functional Identity of Rat Liver Microsomal Glucose 6-Phosphatase and Inorganic Pyrophosphatase" (*ibid.*, pp. 665-72).
- "Liver Response Tests. VIII. Effect of Hepatotoxic Compounds on the Activity of Liver Nucleoside Diphosphatase and its Dependence on Microsomal Phospholipids" (*ibid.*, pp. 673-90).
- GORNALL, A. G. "Clinical Biochemistry and the Universities" (guest editorial, *Clinical Biochemistry*, vol. 1, no. 2, Oct. 1967, pp. 89-90).
- HUSDAN, H., and RAPOPORT, A. "Estimation of Creatinine by the Jaffe Reaction" (*Clinical Chemistry*, vol. 14, no. 3, March 1968, pp. 222-38).
- KANDEL, S. I., WONG, S. C. C., KANDEL, M., and GORNALL, A. G. "Irreversible Inactivation of Bovine Carbonic Anhydrase B by Bromoacetazolamide" (*Journal of Biological Chemistry*, vol. 243, no. 9, May 10, 1968, pp. 2437-9).
- NOWACZYNSKI, W., SILAH, J. G., and GENEST, J. "Procedure for Determination of Aldosterone in Human Peripheral Plasma by Double-Isotope Derivative Assay, and its Application for Measurement of Secretory Rate and Urinary Excretion" (*Canadian Journal of Biochemistry*, vol. 45, no. 12, Dec. 1967, pp. 1919-36).
- OSTROVSKY, D., PAPSIN, F. R., and GORNALL, A. G. "Renal-Adrenal Interrelationships in Experimental Hypertension" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, no. 21, March 1968, pp. 179-88).
- PAUL, W., and WOLF, C. R. "An Ear Oximeter using D.C. Operational Amplifiers" (*Canadian Journal of Physiology and Pharmacology*, vol. 45, no. 6, Nov. 1967, pp. 1001-9).
- RADOMSKI, M. W., BRITTON, A., and SCHÖNBAUM, E. "A Free Fatty Acid-free Thyroxine Relationship in Serum" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, no. 1, Jan. 1968, pp. 119-20).
- SYED, R. A. "Enzymatic Determination of Ethyl Alcohol by an Automated Fluorometric Technique" (*Technicon Symposia*, vol. 1, 1967, pp. 571-7).
- WEBSTER, B. R., BRITTON, A., VOLPÉ, R., and EZRIN, C. "Further Studies on the Rate of Disappearance of Labelled Thyroxine from the Intravascular Compartment of Man, with Reference to the Role of Thyroxine Binding Proteins" (*Acta Endocrinologica*, vol. 55, July 1967, pp. 497-521).

PATHOLOGY

- ANDERSON, W. ed. *Boyd's Pathology for the Surgeon*. Philadelphia: Saunders, 1967. Pp. 794.
- BALIS, J. U., CHAN, A. S., and CONEN, P. E. "The Effect of Postlathyrivic Medial Scar on the Progression of Experimental Atherosclerosis in Rats" (*Experimental and Molecular Pathology*, vol. 8, no. 1, Feb. 1968, pp. 90-111).
- CONEN, P. E. (with BELL, C. D.) "Change in Fiber Size in Duchenne Muscular Dystrophy" (*Neurology*, vol. 17, no. 9, Sept. 1967, pp. 902-13).
- CONEN, P. E., PAUNIER, L., RADDE, I. C., KOOH, S. W., and FRASER, D. "Primary Hypomagnesemia with Secondary Hypocalcemia in an Infant" (*Pediatrics*, vol. 41, no. 2, Feb. 1968, pp. 385-402).
- ERKMAN, B., CROOKSTON, J. H., and CONEN, P. E. "Double Ph¹ Chromosomes in Chronic Granulocytic Leukemia" (*Cancer*, vol. 20, no. 11, Nov. 1967, pp. 1963-75).
- ERKMAN, B., HAZLETT, B., CROOKSTON, J. H., and CONEN, P. H. "Hypodiploid Chromosome Pattern in Acute Leukemia following Polycythemia Vera" (*Cancer*, vol. 20, no. 8, Aug. 1967, pp. 1318-25).
- FREEDMAN, H. L., TAICHMAN, N. S., and KEYSTONE, J. "Inflammation and Tissue Injury. II. The Local Release of Lysosomal Enzymes during Mixed Bacterial Infection in the Skin of Rabbits" (*Proceedings of the Society of Experimental and Biological Medicine*, vol. 125, no. 3, Aug.-Sept. 1967, pp. 1209-13).
- GRAY, T. G., and REWCASTLE, N. B. "Parkinsonism and Striato-nigral Degeneration" (*Canadian Medical Association Journal*, vol. 97, no. 5, July 29, 1967, p. 240) (abstract).
- HARTROFT, W. S., DE LA IGLESIA, F. A. and PORTA, E. A. "Effects of Dietary Protein Levels on Saimiri Sciureus" (*Experimental and Molecular Pathology*, vol. 7, no. 2, Oct. 1967, pp. 182-95).
- HEFFERNAN, L. P., REWCASTLE, N. B., and HUMPHREY, J. G. "The Spectrum of Rod Myopathies" (*Canadian Medical Association Journal*, vol. 97, no. 5, July 29, 1967, pp. 234-5).
- HUNTER, K. M. F., and REWCASTLE, N. B. "Metastatic Neoplasms of the Brain Stem" (*Canadian Medical Association Journal*, vol. 98, no. 1, Jan. 6, 1968, pp. 1-7).
- LEWIN, P. K. "The Ultrastructure of Mummified Skin Cells" (*Canadian Medical Association Journal*, vol. 98, no. 21, May 25, 1968, pp. 1011-12).
- LEWIN, P. K., and MOSCARELLO, M. A. "Liver Ultrastructural and Biochemical Changes in Prenephrotic Stage of Aminonucleoside Nephrosis" (*Experimental and Molecular Pathology*, vol. 8, no. 1, Feb. 1968, pp. 21-33).
- "Ultrastructural Changes in Prenephrotic Liver in Experimental Nephrosis" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, 1967, p. 131) (abstract).
- LUMB, G. "A Pathologist's Viewpoint on Quality Assurance of Pharmaceutical Products" (*Medical Services Journal of Canada*, vol. 23, no. 3, March 1967, pp. 370-8).
- LUMB, G. (with DE LA IGLESIA, F. A., and SOSA-LUCERO, J. C.) "On the Experimental Reproduction of Intracytoplasmic Hyaline in Liver Cells" (*Federation Proceedings*, vol. 27, no. 2, March-April 1968, p. 605) (abstract).
- LUMB, G. (with MALININ, T. I., STOKES, J. R., and LARDY, L. B.) "Experimental Coronary Artery Narrowing in Swine. I. Morphologic and Histochemical Myocardial Changes" (*Johns Hopkins Medical Journal*, vol. 122, no. 2, Feb. 1968, pp. 102-11).
- McMILLAN, G. C., RITCHIE, A. C., and SILVER, M. D. "The Morphology and Pathology of Endothelium"; in *Cowdry's Arteriosclerosis, a Survey of the Problem*, by H. T. Blumenthal, pp. 87-103. Springhill, Ill.: Thomas, 1967.
- MEDLINE, N. M., KAY, R. W. W., and ROBERTSON, D. M. "Intraventricular Meningioma" (*Archives of Pathology*, vol. 85, no. 5, May 1968, pp. 562-6).
- MOVAT, H. Z., DI LORENZO, N., TAICHMAN, N. S., BERGER, S., and STEIN, H. "Suppression by Antihistamines of Passive Cutaneous Anaphylaxis Produced with Anaphylactic Antibody in the Guinea Pig" (*Journal of Immunology*, vol. 98, no. 2, Feb. 1967, pp. 230-5).
- PINKERTON, P. H. "Histological Evidence of Disordered Iron Transport in the X-Linked Hypochromic Anaemia of Mice" (*Journal of Pathology and Bacteriology*, vol. 95, no. 1, Jan. 1968, pp. 155-65).
- PINKERTON, P. H. (with BANNERMAN, R. M.) "Hereditary Defect in Iron Absorption in Mice" (*Nature*, vol. 216, no. 5114, Nov. 4, 1967, pp. 482-3).
- "X-Linked Hypochromic Anaemia of Mice" (*British Journal of Haematology*, vol. 13, no. 10, Oct. 1967, pp. 1000-13).
- PINKERTON, P. H. (with MCFARLANE, D. B., DAGG, J. H., and GOLDBERG, A.) "Incidence of Iron Deficiency with and without Anaemia, in Women in General Practice" (*British Journal of Haematology*, vol. 13, no. 9, Sept. 1967, pp. 790-6).
- RANNEY, E. K., NORMAN, M. G., and SILVER, M. D. "Varicella Pneumonitis" (*Canadian Medical Association Journal*, vol. 96, no. 8, Feb. 25, 1967, pp. 445-50).
- ROSEN, F., DECK, J. H. N., and REWCASTLE, N. B. "Allescheria Boydii"; in *Mycoses of the Central Nervous System*, by B. F. Fetter, G. K. Klintworth and W. S. Hendry, p. 175. Baltimore: Williams and Wilkins, 1967.
- ROSS, R. C., and FERRIE, R. K. "Retroperitoneal Mullerian Carcinosarcoma" (*Canadian Medical Association Journal*, vol. 97, no. 21, Nov. 18, 1967, pp. 1290-2).

- SILVER, M. D., and MCKINSTRY, J. R. "Morphology of Microtubules in Rabbit Platelets" (*Zeitschrift für Zellforschung und Mikroskopische Anatomie*, vol. 81, no. 1, July 1967, pp. 12-17).
- STRASBERG, S. M., and SILVER, M. D. "Haematological Streptococcal Gangrene" (*American Journal of Surgery*, vol. 115, no. 6, June 1968, pp. 763-8).
- TAICHMAN, N. S., FREEDMAN, H. L., FRANKLIN, A. B., and KEYSTONE, J. "Lysosomal Enzyme Activity in Local Shwartzman Reaction (LSR) and Related Phenomena" (*Federation Proceedings*, vol. 26, no. 2, March-April 1967, p. 627) (abstract).
- UDAKA, K. "Further Purification of Acidic Vasoactive Peptides from Cutaneous Arthus Lesions and their Role in Inflammation" (*Federation Proceedings*, vol. 27, no. 2, March-April 1968, p. 249).
- "Studies on the Biochemical Mechanisms of Allergic Inflammation: Purification of SH-Dependent Protease from Cutaneous Arthus Lesions" (*7th International Congress of Biochemistry*, vol. 5, Aug. 1967, p. 1046) (abstract).
- URIUHARA, T., and MOVAT, H. Z. "The Role of PMN-Leukocyte Lysosomes in Tissue Injury, Inflammation and Hypersensitivity. V. Partial Suppression in Leukopenic Rabbits of Vascular Hypersensitivity due to Thermal Injury" (*Proceedings of the Society of Experimental and Biological Medicine*, vol. 124, no. 1, Jan. 1967, pp. 279-84).
- WALTER, J. B. *Principles of Pathology for Dental Students*. London: J. & A. Churchill Ltd., 1967. Pp. 437.
- WENTWORTH, P. "Placental Infarction and Toxemia of Pregnancy" (*American Journal of Obstetrics and Gynecology*, vol. 99, no. 3, Oct. 1967, pp. 318-26).

PHARMACOLOGY

- BAKKE, J. L., LAWRENCE, N. L., and SCHÖNBAUM, E. "Chronic Effects of Triiodothyronine on Thyrotrophin Levels in Thyroidectomized Rats" (*Canadian Journal of Physiology and Pharmacology*, vol. 57, no. 1, Jan. 1968, pp. 142-8).
- GIBBINS, R. J., KALANT, H., and LEBLANC, A. E. "A Technique for Accurate Measurement of Moderate Degrees of Alcohol Intoxication in Small Animals" (*Journal of Pharmacology and Experimental Therapeutics*, vol. 159, no. 1, Jan. 1968, pp. 236-42).
- GROSSMAN, M., KALOW, W., and COOPER, P. "Effects of Enzymes on the Pharmacology of Isolated Organs" (*Nature*, vol. 217, no. 5134, March 23, 1968, pp. 1151-2).
- HICKIE, R.A., and KALANT, H. "Modification of Hexobarbital Metabolism by Morris Hepatoma 5123tc" (*Canadian Journal of Physiology and Pharmacology*, vol. 45, no. 6, Nov. 1967, pp. 975-83).
- HOCKMAN, C. H., MAUCK, H. P., JR., and CHU, N-S. "ECG Changes Resulting from Cerebral Stimulation. III. Action of Diphenylhydantoin on Arrhythmias" (*American Heart Journal*, vol. 74, no. 2, Aug. 1967, pp. 256-60).
- HOCKMAN, C. H., MAUCK, H. P., JR., and HOFF, E. C. "Experimental Neurogenic Arrhythmias" (*Bulletin of the New York Academy of Medicine*, vol. 43, no. 12, Dec. 1967, pp. 1097-105).
- KADAR, D., COOPER, P. D., and SUNAHARA, F. A. "Extraction, Isolation, and some Pharmacological Characteristics of Rabbit Renal Medullary Extracts" (*Canadian Journal of Physiology and Pharmacology*, vol. 45, no. 6, Nov. 1967, pp. 1071-1080).
- KADAR, D., and SUNAHARA, F. A. "The Influence of Prostaglandin on the Effect of Autonomic Drugs in the Superior Mesenteric Vein" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, July 1967, p. 24).
- KALANT, H. "Pathophysiological Factors in the Etiology of Alcoholism" (*Canadian Medical Association Journal*, vol. 97, no. 10, Sept. 2, 1967, pp. 1053-7).
- Invited contributor to A.M.A. Manual on Alcoholism, 1967.
- KALANT, H., and GROSE, W. "Effects of Ethanol and Pentobarbital on Release of Acetylcholine from Cerebral Cortex Slices" (*Journal of Pharmacology and Experimental Therapeutics*, vol. 158, no. 3, Dec. 1967, pp. 386-93).
- KALOW, W. "Pharmacogenetics" (*Postgraduate Medicine*, vol. 42, no. 1, July 1967, pp. 32-8).
- "Pharmacogenetics and the Predictability of Drug Responses" (*Ciba Foundation Symposium on Drug Responses in Man*, 1967, pp. 220-33).
- KHANNA, J. M., KALANT, H., and BUSTOS, G. "Effects of Chronic Intake of Ethanol on Rate of Ethanol Metabolism. II. Influence of Sex and Schedule of Ethanol Administration" (*Canadian Journal of Physiology and Pharmacology*, vol. 45, no. 5, Sept. 1967, pp. 777-85).
- MAUCK, H. P., and HOCKMAN, C. H. "CNS Mechanisms Mediating Cardiac Rate and Rhythm" (*American Heart Journal*, vol. 74, no. 1, July 1967, pp. 96-109).
- POWELL, P. E., and KUMAR, M. A. "Gastric Histidine Decarboxylase" (*Analytical Biochemistry*, vol. 22, no. 3, March 1968, pp. 485-92).
- ROSCHLAU, W. H. E. "Thrombolytic Therapy with CA-7, a Fibrinolytic Enzyme from *Aspergillus oryzae*: A Report of Two Representative Cases" (*Canadian Medical Association Journal*, vol. 98, no. 16, pp. 757-61).
- SEN, A. K., and TOBIN, T. "Ouabain Inhibition and Ligand Affinities of the (Na⁺ + K⁺)-

- Dependent ATPase of Guinea Pig Kidney" (*11th Annual Proceedings of the Canadian Federation of Biological Societies*, vol. 2, June 1968, pp. 93-4).
- STURTRIDGE, W. C., and KUMAR, M. A. "Assay of Calcitonin in Human Plasma" (*The Lancet*, vol. 1, no. 7545, April 6, 1968, pp. 725-6).
- "Calcium Homeostasis in Chronic Thyrocalcitonin Deficiency" (*Endocrinology*, vol. 81, no. 6, Dec. 1967, 1297-1300).
- SUNAHARA, F. A., and STERNE, V. "Effects of Prostaglandins on Isolated Ureters" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, July 1967, p. 21).
- WALTERS, G. C., and COOPER, P. "Alicyclic Analogue of Mescaline" (*Nature*, vol. 218, no. 5138, April 20, 1968, pp. 298-300).
- ZSOTÉR, T. "Effect of Aminophylline and Isoproterenol on Venous Distensibility" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, no. 2, March 1968, pp. 225-8).

PHYSIOLOGY

- CAMPBELL, J., and RASTOGI, K. S. "Effects of Growth Hormone on the Rate of Disappearance of Insulin from Blood in Depancreatized and Houssay Dogs" (*Metabolism*, vol. 16, 1967, pp. 562-71).
- "Serum Insulin, Glucose, Protein and Free Fatty Acid Responses to Corticoid in the Dog" (*Diabetes*, vol. 16, July 1967, p. 520).
- CAMPBELL, J., RASTOGI, K. S., LAZDINS, V., and GREEN, G. R. "Augmentation of Insulin Utilization by Growth Hormone, Associated with Hyperglycaemia and Suppression of Glucose Uptake" (*Federation Proceedings*, vol. 27, 1968, p. 433).
- CARRASQUER, G., SOLOMON, S., and SONNENBERG, H. "Evidence of Restricted Permeability to Urea in Rat Distal Tubule" (*Proceedings of the Society for Experimental Biological Medicine*, vol. 125, 1967, pp. 828-32).
- COWAN, J. S., HETENYI, G., JR., and SCHACHTER, D. "Validity of a Tracer-Injection Method in the Study of Glucose Turnover in Normal Dogs" (*Federation Proceedings*, vol. 26, no. 2, March-April 1967, abstract 354).
- COWELL, J. W. F., and HETENYI, G., JR. "Sympatho-adrenergic Mechanisms in Glucose Homeostasis" (*Proceedings of the Canadian Federation of Biological Sciences*, vol. 10, no. 5, July 1967, abstract 284, p. 104).
- DAVIDSON, J. K. "Diabetes Mellitus: What is it?" (*Journal of the Medical Association of Georgia*, vol. 57, no. 2, Feb. 1968, pp. 55-61).
- DAVIDSON, J. K., ASHWORTH, M. A., CODDLING, J. A., and HAIST, R. E. "A Comparison of Rates of Disappearance of Injected I^{131} Insulin and TSIA from Serum of Totally Pancrectomized Dogs" (*Excerpta Medica, International Congress Series*, vol. 140, 1967, abstract 180, p. 72).
- DAVIDSON, J. K., ZEIGLER, M., and HAIST, R. E. "Failure of Antibody to Beef Insulin to Neutralize Coypu (Nutria) Insulin" (*Excerpta Medica, International Congress Series*, vol. 140, 1967, abstract 181, p. 72).
- "Failure of Guinea Pig Antibody of Beef Insulin to Neutralize Coypu (Nutria) Insulin" (*Diabetes*, vol. 17, no. 1, Jan. 1968, pp. 8-12).
- FORBATH, N., KENSHOLE, A. B., and HETENYI, G., JR. "Turnover of Lactic Acid in Normal and Diabetic Dogs Calculated by Two Tracer Methods" (*American Journal of Physiology*, vol. 212, no. 5, May 1967, pp. 1179-84).
- GAGLIARDINO, J. J., BAILEY, J. D., and MARTIN, J. M. "Effect of Pitressin on Serum-Levels of Human Growth Hormone" (*The Lancet*, vol. 1, no. 7504, June 24, 1967, pp. 1357-8).
- GAGLIARDINO, J. J., and MARTIN, J. M. "Studies on the Mechanism of Insulin Release" (*Metabolism*, vol. 15, 1966, pp. 1068-75).
- HAZLETT, B. E., and DAVIDSON, J. K. " I^{131} -insulin Disappearance Studies in Diabetic Patients" (*Diabetes*, vol. 16, no. 7, July 1967, p. 526) (abstract).
- HENDERSON, M. J., HAAG, A. L., and HAIST, R. E. "The Effects of Hypothermia and Insulin on the Distribution of Glucose in some Tissues of the Rat" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, May 1968, pp. 399-405).
- HETENYI, G., JR., and REYNOLDS, J. "A Simple Procedure for Counting Doubly Labelled Quenched Samples by Liquid Scintillation Spectrometry" (*International Journal of Applied Radiation Isotopes*, vol. 18, no. 5, May 1967, pp. 331-2).
- HETENYI, G., JR., and STUDNEY, D. "The Distribution of Glucose and Methyl-glucose between the Liver and Plasma in Normal and Insulin Injected Rats" (*Experientia*, vol. 23, no. 3, April 1967, pp. 219-20).
- HETENYI, G., JR., and WRENSHALL, G. A. "Adaptive Mechanisms in Glucose Homeostasis in Normal and Diabetic Dogs" (*Excerpta Medica, International Congress Series*, vol. 140, 1967, abstract 320, p. 130).
- MARTIN, J. M. "Effect of D-glucosamine on Glucose Metabolism and Insulin Action in the Rat Intact Diaphragm" (*Canadian Journal of Physiology and Pharmacology*, vol. 45, 1967, pp. 577-86).
- "Some Factors Involved in the Immunoassay of Insulin" (*Clinical Biochemistry*, vol. 1, 1967, p. 110).

- MARTIN, J. M., and GAGLIARDINO, J. J. "Effect of Growth Hormone on the Isolated Pancreatic Islets of Rat *in vitro*" (*Nature*, vol. 213, no. 5076, Feb. 11, 1967, pp. 630-1).
- MARTIN, J. M., and WILSON, R. B. "Incidencia de lesiones cardiovasculares y diabetes experimental" (*Acta Physiologica Latin America*, vol. 16, supp. 2, 1966, pp. 202-12; special lecture, VII Latin American Congress of Physiology).
- MITCHELL, R. I., and DAVIDSON, J. K. "Heterotopic Autotransplantation of the Canine Pancreas" (*Surgery*, vol. 62, no. 3, Sept. 1967, pp. 454-61).
- MONKHOUSE, F. C. "Antithrombin"; in *Blood Clotting Enzymology*, ed. W. H. Seegers, pp. 323-44. New York: Academic Press, 1967.
- MONKHOUSE, F. C., and MILOJEVIC, S. "Studies on the Relation between Plasma Antithrombin and Heparin-cofactor" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, May 1968, pp. 347-50).
- ORGAN, L. W. "The Fetal Electrocardiogram in a Case of Conjoined Twins" (*Canadian Medical Association Journal*, vol. 97, no. 2, July 15, 1967, pp. 69-71).
- "Scalp Lead Fetal Electrocardiography" (*Canadian Medical Association Journal*, vol. 98, Jan. 27, 1968, pp. 199-204).
- ORGAN, L. W., TASKER, R. R., and MOODY, N. F. "Brain Tumor Localization using an Electrical Impedance Technique" (*Journal of Neurosurgery*, vol. 28, no. 1, Feb. 1968, pp. 35-54).
- "The Impedance Profile of the Human Brain as a Localization Technique in Stereoecephalotomy" (*Confinia Neurologica*, vol. 29, nos. 2-5, 1967, pp. 192-6).
- PEARCE, J. W. "The Renal Response to Volume Expansion" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, 1968, pp. 305-13).
- RAPPAPORT, A. M., KAWAMURA, T., DAVIDSON, J. K., LIN, B. J., ZELIN, S., and HAIST, R. E. "The Quantitative Determination of Insulin Output following an Intravenous Glucose Tolerance Test in the Dog" (*Excerpta Medica International Congress Series*, vol. 140, 1967, abstract 210, p. 84).
- RAPPAPORT, A. M., and KNOBLAUCH, M. "The Hepatic Artery, its Structural, Circulatory and Metabolic Functions"; in *Liver Research*, vol. 10B, Transactions of the 3rd International Symposium of the International Association for the Study of the Liver, Tokyo and Kyoto, Sept. 1966, ed. J. Vandenbroucke, J. De Groote and L. O. Standaert, pp. 116-28. Antwerp: Tijdschrift voor Gastroenterologie, 1968.
- RAPPAPORT, A. M., VRANIC, M., COWAN, J. S., and WRENSHALL, G. A. "Autogreffe sous-cutanée pediculée d'un résidu pancréatique pour blocage temporaire de la sécrétion pancréatique interne chez le chien" (*Revue Medico-Chirurgicale des maladies du foie de la rate et du pancréas*, vol. 42, no. 6, Dec. 1967, pp. 247-64).
- RASTOGI, K. S., and CAMPBELL, J. "Serum Insulin and Diabetogenic Responses in Hypophysectomized and Intact Dogs to Growth Hormone" (*International Congress Series*, vol. 140, 1967, p. 122).
- SANBAR, S. S., and MARTIN, J. M. "Stimulation by Octanoate of Insulin Release from Isolated Rat Pancreas" (*Metabolism*, vol. 16, 1967, pp. 482-4).
- SCOTT, J. W. "Discussion of Sleep"; in *Mammalian Hibernation*, vol. III, ed. Fisher *et al.* Edinburgh: Oliver & Boyd, 1967.
- SIREK, A., PRZYBYLSKA, K., and SIREK, O. V. "Plasma Free Fatty Acid Concentrations in Houssay Dogs following a Single Injection of Growth Hormone" (*Excerpta Medica, International Congress Series*, vol. 140, 1967, p. 123).
- SIREK, A., and SIREK, O. V. "Serum Proteins in Newborn Infants of Diabetic Mothers" (*Atti del 1° Congresso Nazionale della società Italiana de diabetologia e del 3 simposio nazionale sul diabete Catania 16-18 Febraio, 1966, 1967*, pp. 35-9).
- SIREK, O. V., and GORMAN, C. K. "A Canadian Workshop in Diabetes" (*Diabetologia*, vol. 3, 1967, p. 468).
- SIREK, O. V., NIKI, A., NIKI, H., and SIREK, A. "Combined Effects of Growth Hormone and Serotonin on Plasma Amino Acids in Dogs" (*Federation Proceedings*, vol. 27, no. 2, March-April 1968, abstract 1216, p. 433).
- "The Effect of Growth Hormone on Plasma Concentration of Free Amino Acids in Diabetic Dogs" (*Excerpta Medica, International Congress Series*, vol. 140, 1967, p. 124).
- SIREK, O. V., and SIREK, A. "The Colony of Chinese Hamsters of the C. H. Best Institute. A Review of Experimental Work" (*Diabetologia*, vol. 3, 1967, pp. 65-74).
- SIREK, O. V., SIREK, A., and BUCALOSSI, A. "Hemopexin in Newborn Infants of Diabetic Mothers" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, no. 3, May 1968, pp. 417-20).
- SIREK, O. V., SIREK, A., and NIKI, H. "Plasma Free Fatty Acid and Glucose Concentrations in Houssay Dogs" (*Acta Diabetologica Latina*, vol. 4, 1967, p. 212).
- SIREK, O. V., SIREK, A., PRZYBYLSKA, K., DOOLAN, H., and NIKI, A. "Plasma Free Fatty Acid Concentrations in Houssay Dogs following a Single Injection of Growth Hormone" (*Endocrinology*, vol. 81, no. 2, Aug. 1967, pp. 395-7).
- SMITH, L. M., MARSHALL, K. C., and SCOTT, J. W. "Action Potentials in the Nerve of Posterior Semicircular Canal of the Cat" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, no. 3, May 1968, pp. 549-52).
- STEINER, G. "Post-heparin and Lipolytic Activity in Fat Induced Hyperlipemia" (*Clinical Research*, vol. 15, 1967, p. 472) (abstract).

- STEINER, G., and SCHÖNBAUM, E. "Effects of Immunosympathectomy on the Metabolic Response of Adipose Tissue and Liver to Cold Acclimation" (*Federation Proceedings*, vol. 7, 1968, p. 699).
- STEINER, G., SCHÖNBAUM, E., JOHNSON, G. E., and SELLERS, E. A. "Lipid Metabolism: Effects of Immunosympathectomy and Acclimation to Cold" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, May 1968, pp. 453-61).
- TASAKA, Y., and CAMPBELL, J. "Pancreatic Insulinase and its Inhibition by the A and B Chains and Partial Hydrolysate of Insulin" (*Canadian Journal of Biochemistry*, vol. 46, May 1968, pp. 483-7).
- "Pancreatic Insulinase: Inhibition by A and B Chains and Hydrolysate of Insulin" (*Federation Proceedings*, vol. 26, 1967, p. 317).
- VRANIC, M., and WRENSHALL, G. A. "Matched Rates of Insulin Infusion and Secretion and Concurrent Tracer Determined Rates of Glucose Appearance and Disappearance in Fasting Dogs" (*Canadian Journal of Physiology and Pharmacology*, vol. 46, May 1968, pp. 383-90).
- VRANIC, M., WRENSHALL, G. A., KUKSIS, A., and LIN, B. "Matched Rates of Insulin Secretion and Infusion in Fasting Dogs" (*Proceedings of the Canadian Federation of Biological Societies*, vol. 10, 1967, abstract 281, p. 103).
- "Matched Rates of Insulin Infusion and Secretion in Fasting Dogs" (*Excerpta Medica, International Congress Series*, vol. 140, 1967, abstract 222, p. 89).
- WILSON, R. B., MARTIN, J. M., and HARTROFT, W. S. "Dietary Control of Serum Cholesterol Levels in Rats Fed High-Fat Cholate-Containing Diets" (*Canadian Journal of Physiology and Pharmacology*, vol. 44, 1966, pp. 267-73).
- "An Evaluation of the Relative Pathogenic Roles of Diabetes and Serum Cholesterol Levels in the Development of Cardiovascular Lesions in Rats" (*Diabetes*, vol. 16, 1967, pp. 71-82).
- WRENSHALL, G. A., COWAN, J. S., HETENYI, G. JR., RAPPAPORT, A. M., KUKSIS, A., PAUL, E. M., and VRANIC, M. "Tracer Determined Glucose Production versus Nitrogen Excretion in Fasting Normal and Depancreatized Dogs" (*Diabetes*, vol. 16, 1967, pp. 507-8).
- WRENSHALL, G. A., VRANIC, M., KUKSIS, A., ILK, S. G., and COWAN, J. S. "Glucose Turnover and FFA Levels in Normal and Depancreatized Dogs before, during and after Running" (*Excerpta Medica, International Congress Series*, no. 140, 1967, abstract 267, p. 107).

PSYCHIATRY

- ALDERTON, H. R. "Psychiatric Disorder in the Academically Failing Child" (*Applied Therapeutics*, vol. 9, no. 8, Aug. 1967, pp. 667-71).
- ALLODI, F. A. "Help-Seeking Patterns of the Italians in Toronto" (*Canadian Journal of Public Health*, vol. 58, no. 10, Oct. 1967, pp. 441-3).
- BAKER, E. F. W. "The LSD Experience" (*Addictions*, vol. 14, no. 3, fall 1967, pp. 20-4).
- "Ref. LSD Psychotherapy; LSD Psycho-Exploration"; in *The Use of LSD in Psychotherapy and Alcoholism*, ed. Harold A. Abrahamson, pp. 191-204. Indianapolis: Bobbs-Merrill, 1967.
- BAKER, E. F. W., and SOLURSH, L. (with SMART, R. G. and STORM, T.) *Lysergic Acid Diethylamide in the Treatment of Alcoholism*. Toronto: University of Toronto Press, 1967. Pp. 121.
- BELL, N. W. (with VOGEL, E. F.) *Modern Introduction to the Family*, rev. ed. New York: Free Press, 1968. Pp. xi, 758.
- BONKALO, A. "Electroencephalography in Criminology" (*Canadian Psychiatric Association Journal*, vol. 12, no. 3, June 1967, pp. 281-6).
- "Hypersomnia" (*British Journal of Psychiatry*, vol. 114, no. 506, Jan. 1968, pp. 69-75).
- BRAWLEY, P., and POS, R. "The Informational Underload (Sensory Deprivation) Model in Contemporary Psychiatry" (*Canadian Psychiatric Association Journal*, vol. 12, no. 2, April 1967, pp. 105-24).
- BUTLER, V. J. "Collaboration between Psychologists and Psychiatrists in Psychotherapy" (*Canadian Psychiatric Association Journal*, vol. 12, no. 1, Feb. 1967, pp. 66-9).
- "Depression: A Review of the Syndrome" (*Modern Medicine (Canada)*, vol. 23, Feb. 1968, pp. 47-55).
- CAPPON, D. "A Note on Body Movement during Understimulation" (*Canadian Psychiatric Association Journal*, vol. 12, no. 1, Feb. 1967, pp. 76-7).
- "Psychiatry Tomorrow" (*American Journal of Psychiatry*, vol. 123, no. 10, April 1967, pp. 1200-1).
- "Understanding Homosexuality" (*Postgraduate Medicine*, vol. 42, no. 4, Oct. 1967, pp. 131-6).
- CAPPON, D. (with BANKS, R.) "Improvement of Recognition on a Multi-model Pattern Discrimination Test" (*Perceptual and Motor Skills*, vol. 26, 1968, pp. 431-41).
- CAPPON, D. (with TYNDEL, M.) "Time Perception in Alcoholism" (*Quarterly Journal of Studies on Alcohol*, vol. 28, no. 3, Sept. 1967, pp. 430-5).

- COATES, D. B. "Epidemiological Aspects of Community Psychiatry" (*Canadian Journal of Public Health*, vol. 59, no. 2, Feb. 1968, pp. 49-53).
- "Poverty and Mental Health" (*Canada's Mental Health*, vol. 15, nos. 5 and 6, Sept.-Oct. 1967, pp. 3-8).
- COATES, D. B. (with MALLINSON, T. J.) "Family Interaction in Schizophrenia" (*Canadian Psychiatric Association Journal*, vol. 12, no. 4, Aug. 1967, pp. 387-402).
- COOKSON, B. A. "Longitudinal Study of Periodic Catatonia. Long-term Clinical and Biochemical Study of a Woman with Periodic Catatonia" (*Journal of Psychiatric Research*, vol. 5, no. 1, March 1967, pp. 15-38).
- COOKSON, B. A., QUARRINGTON, B., *et al.* "Relationship of Periodic Catatonia to Gonadotrophin Imbalance" (*Excerpta Medica, International Congress Series, Proceedings of the IV World Congress of Psychiatry, Madrid*, no. 117, p. 152).
- FRAYN, D. H. "A Relationship between Rated Ability and Personality Traits in Psychotherapists" (*American Journal of Psychiatry*, vol. 124, no. 9, March 1968, pp. 1232-6).
- FREEMAN, S. J. J. "The Development of a Program of Community Psychiatry in a Canadian Urban Center" (*Canadian Journal of Public Health*, vol. 59, no. 1, Jan. 1968, pp. 15-20).
- GREENLAND, C. "Three Pioneers of Canadian Psychiatry" (*Journal of the American Medical Association*, vol. 22, no. 1, June 5, 1967, pp. 833-42).
- HAVELKOVA, M. "Abnormalities in Siblings of Schizophrenic Children" (*Canadian Psychiatric Association Journal*, vol. 12, no. 4, Aug. 1967, pp. 363-70).
- HOLMES, S. J. "Opioid Addiction Problems in Canada" and "Alcoholism in Canada"; in *Proceedings of the Association for Research in Nervous and Mental Diseases*, vol. 46, *The Addictive States*, chapters 27 and 35. Baltimore: Williams and Wilkins. 1968.
- HUNTER, R. C. A. "On the Experience of Nearly Dying" (*American Journal of Psychiatry*, vol. 124, no. 1, July 1967, pp. 84-8).
- LINDENFIELD, R. "Working with Other Professions" (*The Social Worker*, vol. 35, no. 3, Sept. 1967, pp. 175-81).
- LYALL, W. A. L., STANCER, H. C., and FERRAR, A. "Continuous Analysis of Cholesterol from Whole Blood"; in *Automation in Analytical Chemistry, Technicon Symposia 1966*, pp. 503-4. New York: Mediad, 1967.
- McCULLOCH, D. J. "The Community of the University"; in *The University Game*, pp. 19-38. Toronto: Anansi, 1968.
- MOHR, J. W. "Concepts of Treatment and Training in the Field of Corrections: Introduction; Social Science and Social Treatment" (*Canadian Journal of Corrections*, vol. 10, no. 1, Jan. 1968, pp. 4-11, 47-56).
- MOLDOFSKY, H., *et al.* "Therapy of Writer's Cramp"; in *Current Psychiatric Therapies*, vol. 7, pp. 69-72. New York: Grune and Stratton, 1967.
- POS, R. "Physiological Research in Sensory Deprivation" (in Russian) (*Korsakov Journal of Neuropathology and Neuropsychiatry*, vol. 7, no. 3, Dec. 1967, pp. 176-81).
- QUARRINGTON, B., *et al.* "Procedures for Evaluation and Accreditation of Training Programs in Applied Psychology" (*Ontario Psychological Association Quarterly*, vol. 20, no. 1, April 1967).
- ROBERTS, C. A. "On Really Caring for Patients" (*Canada's Mental Health*, vol. 15, nos. 3 and 4, May-Aug. 1967, pp. 20-4).
- "Preventive Psychiatry"; in *Fundamentals of Psychiatry*, by Ian Gregory, pp. 306-27. Philadelphia: W. B. Saunders, 1968.
- SASTRY, P. S., and STANCER, H. C. "Blood Gangliosides in Infantile Amavrotic Idiocy" (*Clinica Chimica Acta*, vol. 20, 1968, pp. 487-9).
- SOLURSH, L. P., *et al.* "Hallucinogenic Drug Abuse - Manifestations and Management" (*Canadian Medical Association Journal*, vol. 98, no. 8, Feb. 24, 1968, pp. 407-10).
- "Legal Status of Marijuana" (*Canadian Medical Association Journal*, vol. 98, no. 16, April 20, 1968, pp. 791-2).
- STATTEN, T. "Child Psychiatric Syndromes in University Students" (*Canadian Psychiatric Association Journal*, vol. 13, no. 2, April 1968, pp. 105-7).
- STEINER, B. W. "Psychotropic Drugs: Their Use and Abuse" (*Bulletin of the Ontario College of Pharmacy*, vol. 17, no. 3, May 1968, pp. 41-5).
- STOKES, A. B. "The Toronto Psychiatric Hospital 1926-1966" (*Canadian Psychiatric Association Journal*, vol. 12, no. 5, Oct. 1967, pp. 521-3).
- (ed.) *Psychiatry in Transition 1966-1967*. Toronto: Clarke Institute of Psychiatry and University of Toronto Press, 1967. Pp. 137.
- "Thanks, Thinking about, and Thinking"; foreword in *Psychiatry in Transition 1966-1967*, pp. v-xi. Toronto: Clarke Institute of Psychiatry and University of Toronto Press, 1967.
- TURNER, R. E. "Forensic Psychiatry and Criminology in Canada" (*Excerpta Medica, International Congress Series, Proceedings of the IV World Congress of Psychiatry, Madrid*, no. 150, Feb. 1968, pp. 1318-23).

RADIOLOGY

- DAVIDSON, J. W. "Lymphography in Malignant Disease: Radiological Aspects" (*Canadian Medical Association Journal*, vol. 97, no. 21, Nov. 25, 1967, pp. 1282-9).

- FITZPATRICK, P. J. "The Nasopharyngeal Angiofibroma" (*Journal of the Faculty of Radiologists*, vol. 18, no. 1, Jan. 1967, pp. 62-8).
- "Tumours of the Skin" (*The Canadian Nurse*, vol. 63, Feb. 1967, pp. 45-7).
- HARWOOD-NASH, D. C. F., and LANSDOWN, E. L. "Evaluation of the Urea Washout Pyelogram and Urography in the Assessment of Renovascular Hypertension" (*Canadian Medical Association Journal*, vol. 96, no. 5, Feb. 4, 1967, pp. 245-56).
- HARWOOD-NASH, D. C. F., LANSDOWN, E. L., et al. "Nephrotomography in Various Renal Disorders" (*Journal of the Canadian Association of Radiologists*, vol. 18, no. 4, Dec. 1967, pp. 427-33).
- JENKIN, R. D. T., PETERS, M. V., and DARTE, J. M. M. "Hodgkin's Disease in Children" (*American Journal of Roentgenology*, vol. 100, no. 1, May 1967, pp. 222-6).
- LEVISON, H., WENTWORTH, P., SIMPSON, J., MOES, C. A. F., et al. "Open Lung Biopsy in Children" (*American Review of Respiratory Disease*, vol. 97, no. 4, April 1968, pp. 673-84).
- MCRAE, D. L., et al. "The Occipital Horns and Cerebral Dominance" (*Neurology*, vol. 18, no. 1, Jan. 1968, pp. 95-8).
- MOES, C. A. F., GOLDMAN, B. S., and MUSTARD, W. T. "Anomalous Pulmonary Venous Drainage from the Left Lung into a Left Vertical Vein" (*Journal of the Canadian Association of Radiologists*, vol. 18, no. 3, Sept. 1967, pp. 377-81).
- PETERS, M. Vera. "Lymphography in the Management of Malignancies, Particularly Lymphomas" (*Canadian Medical Association Journal*, vol. 97, no. 21, Nov. 18, 1967, pp. 1278-82).
- "Natural History of the Lymphomas Related to the Clinical Classification" (*International Conference on Leukaemia-Lymphomas*, University of Michigan, Ann Arbor, Oct. 1967).
- SANDERS, D. E. "Pleural Mesothelioma" (*Journal of the Canadian Association of Radiologists*, vol. 19, June 1968, pp. 64-73).
- SIMPSON, W. J. K., PLATTS, M. E., et al. "Metastatic Cerebellar Sarcoma (Desmoplastic Medulloblastoma) with Diffuse Osteosclerosis and Leukoerythroblastic Anemia" (*American Journal of Roentgenology*, vol. 103, no. 1, May 1968, pp. 38-43).
- WORTZMAN, G., et al. "The Neurotoxic Effect of Water-Soluble Contrast Media in the Spinal Canal with Emphasis on Appropriate Management" (*Journal of the Canadian Association of Radiologists*, vol. 19, no. 2, June 1968, pp. 206-303).
- WORTZMAN, G., and DEWAR, F. P. "Rotary Fixation of the Atlantoaxial Joint" (*Radiology*, vol. 90, no. 3, March 1968, pp. 479-87).

REHABILITATION MEDICINE

- GODFREY, C. M. "The Family Doctor and Expo" (*Applied Therapeutics*, vol. 9, no. 6, July 1967, p. 587).
- "History of the Sections of Medicine" (*Academy of Medicine Bulletin*, vol. 41, no. 1, Oct. 1967, p. 19).
- "Medical Journalism, Old Style" (*Academy of Medicine Bulletin*, vol. 41, no. 4, Jan. 1968, p. 77).
- "Prostheses for Cancer Patients" (*The Canadian Nurse*, July 1967, pp. 41-3).
- GODFREY, C. M., and JOUSSE, A. T. "Rehabilitation Requirements for Electronic Medicine" (*Proceedings of International Electronics Conference*, Sept. 1967, paper no. 67054).
- GODFREY, C. M., and LAWSON, G. A. "Pedal Pressure Changes during Weight Bearing" (*Journal of the Canadian Physiotherapy Association*, vol. 20, no. 1, Feb. 1968, pp. 17-20).
- GODFREY, C. M., and SMYTHE, H. A. "Hand Deformity and its Prevention" (*Journal of the Canadian Physiotherapy Association*, vol. 20, no. 2, April 1968, pp. 101-4).
- JOUSSE, A. T., WYNNE-JONES, M., and BREITHAUPT, D. J. "A Follow-up Study of Life Expectancy and Mortality in Traumatic Transverse Myelitis" (*Canadian Medical Association Journal*, vol. 98, no. 16, April 20, 1968, pp. 770-2).
- WARD, J. F., GODFREY, C. M., and JOUSSE, A. T. "An Intensive Summer Speech Therapy Programme for Children" (*Canadian Journal of Public Health*, vol. 59, no. 2, Feb. 1968, pp. 54-6).

SURGERY

- BAIRD, R. J., COHOON, W. J., SPRATT, E. H., and WILLIAMS, W. G. "Improved Internal Mammary Implant Operation for Myocardial Revascularization" (*Circulation*, vol. 36, supp. 2, Oct. 1967, p. 60).
- "An Improved Method of Myocardial Revascularization with a Vascular Implant" (*Archives of Surgery*, vol. 95, Nov. 1967, pp. 724-35).
- "A Modification of the Internal Mammary Implant Operation" (*Annals of the Royal College of Physicians and Surgeons of Canada*, vol. 1, Jan. 1968, p. 23).
- "Myocardial Revascularization with Femoral Artery and Vein Autografts" (*Canadian Journal of Surgery*, vol. 10, Oct. 1967, pp. 474-82).

- BIGELOW, W. G., TRIMBLE, A. S., ALDRIDGE, H. E., BEDARD, PIERRE, SPRATT, E. H., and LANSDOWN, E. L. "The Problem of Insufficiency following Homograft Replacement of the Aortic Valve" (*Journal of Thoracic and Cardiovascular Surgery*, vol. 54, no. 4, Oct. 1967, pp. 478-90).
- BIGELOW, W. G., TRIMBLE, A. S., AUGER, PIERRE, and WIGLE, E. D. "Aortic Homograft Valve Replacement of the Mitral Valve" (*Journal of Thoracic and Cardiovascular Surgery*, vol. 54, no. 3, Sept. 1967, pp. 438-42).
- CURRIE, D. J., STITT, R. B., and HESLIN, D. J. "Gall-Stone Ileus" (*British Journal of Surgery*, vol. 54, no. 8, Aug. 1967, pp. 673-8).
- DELARUE, N. C. "Lay Instruction in Cardiopulmonary Resuscitation" (*Canadian Medical Association Journal*, vol. 97, no. 2, July 8, 1967, p. 90).
- "Let's Put Cigarette Smoking in its Proper Perspective. Part I, Mortality Experience; Part II, Morbidity Experience" (*Health*, vol. 35, no. 4, Aug. 1967, p. 14; no. 5, Oct. 1967, p. 14).
- "A Re-evaluation of the Use of Adrenalectomy in Metastatic Mammary Carcinoma" (*Simep Editions*, Lyon, France, 1967, pp. 23-30).
- DEWAR, F. P., and YABSLEY, R. H. "Fracture-Dislocation of the Shoulder" (*Journal of Bone and Joint Surgery*, vol. 49B, Aug. 1967, pp. 540-3).
- DRUCKER, W. R. (with SCHMIDT, G. H.) "Effect of Hemorrhagic Shock on Wound Healing in Rats and Guinea Pigs" (*Journal of Surgical Research*, vol. 7, no. 11, Nov. 1967, pp. 513-19).
- DRUCKER, W. R. (with SCHLATTER, J. E. and DRUCKER, R. P.) "Metabolic Factors Associated with Induced Tolerance for Hypovolemia" (*Journal of Laboratory and Clinical Medicine*, vol. 70, 1967, pp. 983-4).
- FLEMING, J. F. R., and PETRIE, D. "Traumatic Thrombosis of the Internal Carotid Artery with Delayed Hemiplegia" (*Canadian Journal of Surgery*, vol. 11, April 1968, pp. 166-72).
- GALE, G. L., and DELARUE, N. C. "Leiomyosarcoma of the Bronchus" (*Diseases of the Chest*, vol. 52, no. 2, Aug. 1967, pp. 257-60).
- GIBSON, D. A. "Congenital Dislocation of the Hip: A Review of Adults Treated in Childhood" (*Canadian Journal of Surgery*, vol. 10, July 1967, pp. 288-98).
- HALL, J. E., SALTER, R. B., and BHALLA, S. K. "Congenital Short Tendon Calcaneus" (*Journal of Bone and Joint Surgery*, vol. 49B, Nov. 1967, pp. 695-7).
- HARRIS, W. R., and HOUSTON, J. K. "Partial Amputations of the Hand: A Follow-up Study" (*Canadian Journal of Surgery*, vol. 10, Oct. 1967, pp. 431-8).
- HEIMBECKER, R. O. "Pulmonary Embolism" (editorial, *Canadian Medical Association Journal*, vol. 98, no. 2, Jan. 13, 1968, p. 111).
- HEIMBECKER, R. O., and CHEN, C. "Surgery for Acute Myocardial Infarction: An Experimental Study of Emergency Infarctectomy with a Preliminary Report on the Clinical Application" (*Circulation*, vol. 36, supp. 2, Oct. 1967, p. 138) (abstract).
- HEIMBECKER, R. O., KEON, W. J., and ELLIOT, GEORGIA. "Pulmonary Embolectomy" (*Archives of Surgery*, vol. 95, Oct. 1967, pp. 576-84).
- HEIMBECKER, R. O., LEMIRE, G., and CHEN, C. "Surgery for Massive Myocardial Infarction: An Experimental Study of Emergency Infarctectomy with a Preliminary Report on the Clinical Application" (*Circulation*, vol. 37, supp. 2, no. 3, April 1968, p. 11).
- HORSEY, W. J., and SCHATZ, S. W. "Results of Anterior Cervical Discotomy and Fusion" (*Canadian Medical Association Journal*, vol. 97, no. 5, July 29, 1967, p. 240) (abstract).
- HOUPT, J. B., and HASTINGS, D. E. "Surgery in Rheumatoid Arthritis" (*Journal of the Canadian Physiotherapy Association*, vol. 20, no. 2, April 1968, pp. 1-4).
- JACKSON, W. R. "Symposium on Athletic Injuries" (editorial, *Applied Therapeutics*, vol. 9, no. 9, Sept. 1967, p. 733).
- KEON, W. J., TRIMBLE, A. S., and BIGELOW, W. G. "Shock - A Practical Guide to Management" (*Modern Medicine (Canada)*, vol. 23, May 1968, pp. 49-52).
- KERESTECI, A. G. (with DIXON, J. M. S.) "Renal Infection with *Pasteurella multocida*" (*Canadian Medical Association Journal*, vol. 97, no. 1, July 1, 1967, pp. 28-9).
- KERR, W. K. (with BARRIE, H. J.) "The Incidence of Pathogenesis of Tuberculous Strictures of the Renal Pyelus" (*Journal of Urology*, vol. 98, Nov. 1967, pp. 584-9).
- KIM, J. P., KING, M. H., and TRIMBLE, A. S. "An *in vitro* Assessment of Aortic Insufficiency Related to Valve Size after Homograft Valve Replacement" (*Canadian Medical Association Journal*, vol. 98, no. 2, Jan. 13, 1968, p. 111).
- KING, M. H., HEIMBECKER, R. O., and TRIMBLE, A. S. "Importance of Technique in Sterilizing and Preserving Human Aortic Valves" (*Surgical Forum*, vol. 18, 1967, pp. 119-21).
- KLOTZ, P. G. "Congenital Cystic Abnormality of the Seminal Vesicle Associated with Ipsilateral Renal Agenesis: Report of a Case" (*Canadian Journal of Surgery*, vol. 10, Oct. 1967, pp. 471-3).
- LANGER, B. "Fracture-Dislocation of the Ankle with Trapped Fibula: A Report of Two Cases" (*Canadian Journal of Surgery*, vol. 10, July 1967, pp. 308-11).
- LINDSAY, W. K. "Plastic Surgery" (*Bulletin of the Hospital for Sick Children*, vol. 17, 2nd quarter, 1967, pp. 10-12).
- "Timing in Paediatric Surgery" (*ibid.*, p. 1).
- MACDONALD, J. A. "Palliative Treatment of Metastatic Carcinoma of the Liver by Hepatic

- Artery Infusion with 5-Fluorouracil: Report of a Case" (*Canadian Journal of Surgery*, vol. 10, April 1967, pp. 202-7).
- MACGREGOR, D. C., ALDRIDGE, H. E., LANSDOWN, E. L., and BIGELOW, W. G. "Internal Mammary Artery Implantation for the Relief of Angina Pectoris: A Follow-up Study of 77 Patients for up to 13 Years" (*Canadian Medical Association Journal*, vol. 98, no. 4, Jan. 27, 1968, pp. 194-8).
- McDOUGALL, E. P. "Acute Suppurative Tenosynovitis" (*Canadian Journal of Surgery*, vol. 11, Jan. 1968, pp. 41-3).
- McPHEDRAN, N. T., BETT, H. D., STONE, R. M., and GOLDBERG, M. "The Nature and Source of a Gastric Secretagogue" (*Archives of Surgery*, vol. 95, Oct. 1967, pp. 606-8).
- McPHEDRAN, N. T., and PALMER, J. A. "Athletic Injuries" (special article, *Modern Medicine*, vol. 23, March 1968, pp. 41-4).
- MITCHELL, R. I., and DAVIDSON, J. K. "Heterotopic Autotransplantation of the Canine Pancreas" (*Surgery*, vol. 62, no. 3, Sept. 1967, pp. 454-61).
- MORLEY, T. P. "Aims, Constitution and Function of the Medical Staff Association of the Toronto General Hospital" (*Canadian Medical Association Journal*, vol. 98, no. 17, April 27, 1968, pp. 805-7).
- MUNRO, I. R., FARMER, A. W., CSIMA, A., and LINDSAY, W. K. "An Analysis of Burns in Children" (*Canadian Medical Association Journal*, vol. 97, no. 8, Aug. 26, 1967, pp. 459-63).
- MUSTARD, W. T., JAIN, S. C., and TRUSLER, G. A. "Pulmonary Stenosis in the First Year of Life" (*British Heart Journal*, vol. 30, no. 2, March 1968, pp. 255-7).
- MUSTARD, W. T., MOES, C. A. F., et al. "Complete Transposition of the Great Vessels with Anatomic Obstruction of the Outflow Tract of the Left Ventricle" (*American Journal of Cardiology*, vol. 19, no. 5, May 1967, pp. 658-70).
- PEARSON, F. G. "An Evaluation of Mediastinoscopy in the Management of Presumably Operable Bronchial Carcinoma" (*Journal of Thoracic and Cardiovascular Surgery*, vol. 55, no. 5, May 1968, pp. 617-25).
- PEARSON, F. G., HENDERSON, R. D., GROSS, A. E., GINSBERG, R. J., and STONE, R. M. "The Reconstruction of Circumferential Tracheal Defects with a Porous Prosthesis: An Experimental and Clinical Study using Heavy Marlex Mesh" (*Journal of Thoracic and Cardiovascular Surgery*, vol. 55, no. 5, May 1968, pp. 605-16).
- PEARSON, F. G., THOMPSON, D. W., and DELARUE, N. C. "Experience with the Cytologic Detection, Localization and Treatment of Radiographically Undemonstrable Bronchial Carcinoma" (*Journal of Thoracic and Cardiovascular Surgery*, vol. 54, no. 3, Sept. 1967, pp. 371-82).
- PLEWES, BURNS, and McKEE, J. A. "Rupture of the Common Bile Duct by Blunt Trauma" (*Canadian Medical Association Journal*, vol. 98, no. 3, Jan. 20, 1968, pp. 170-1).
- ROBERTSON, D. C. "The Technique of Inferior Flap Mammoplasty" (*Plastic and Reconstructive Surgery*, vol. 40, no. 4, 1967, pp. 372-7).
- SALTER, R. B. "Congenital Dislocation of the Hip"; chapter 7 in *Modern Trends in Orthopaedics*, ed. W. D. Graham, pp. 140-71. Margate, England: Thanet Press, Butterworths, 1967.
- "Etiology, Pathogenesis and Possible Prevention of Congenital Dislocation of the Hip" (*Canadian Medical Association Journal*, vol. 98, no. 20, May 18, 1968, pp. 933-45).
- "Gait Disturbances and Limp in Childhood"; in *Ambulatory Paediatrics*, ed. Morris Green and Robert J. Haggerty, pp. 232-6. Philadelphia: W. B. Saunders, 1967.
- "The Prevention of Cubitus Varus following Supracondylar Fracture of the Humerus in Children" (*Annals of the Royal College of Physicians and Surgeons of Canada*, Jan. 1968, p. 76) (abstract).
- SALTER, R. B., GROSS, ALLAN, and HALL, J. H. "Hydrocortisone Arthropathy - An Experimental Investigation" (*Canadian Medical Association Journal*, vol. 97, no. 7, Aug. 19, 1967, pp. 374-7).
- SHEPHERD, M. P., TAMAKI, H., and MUSTARD, W. T. "Experimental Study of the Paced Denervated Diaphragmatic Pedicle Graft" (*British Journal of Surgery*, vol. 55, no. 2, Feb. 1968, pp. 91-2).
- SHEPHERD, M. P., ZINGG, W., and MUSTARD, W. T. "Membrane Oxygenation: An Assessment of Three Suitable Membranes and an Appraisal of a Commercially Available Infant Membrane Oxygenator" (*Canadian Journal of Surgery*, vol. 10, Oct. 1967, pp. 489-96).
- SIMMONS, E. H. (with Bhalla, S. K.) "Electrolytic Reaction to Dissimilar Metals as a Cause of Sciatica: A Case Report" (*Canadian Journal of Surgery*, vol. 11, Jan. 1968, pp. 52-6).
- SIMPSON, J. S., PELTON, D. A., and SWYER, P. R. "The Importance of Monitoring during Operations on Conjoined Twins" (*Canadian Medical Association Journal*, vol. 96, no. 2, June 3, 1967, pp. 1463-7).
- SIMPSON, J. S. (with UPADHYAYA, P.) "Splenic Trauma in Children" (*Surgery, Gynaecology and Obstetrics*, vol. 126, April 1968, pp. 781-90).
- TASKER, R. R. "Surgical Aspects" (*Applied Therapeutics*, vol. 9, no. 5, May 1967, pp. 454-62).
- TATOR, C. H. "Uptake of Radioiodinated Protein and Amino Acid by Mouse Glioma and Brain" (*Archives of Neurology*, vol. 18, Feb. 1968, pp. 202-7).
- TATOR, C. H., FLEMING, J. F. R., SHEPPARD, R. H., and TURNER, V. M. "Studies of Cere-

- brospinal Fluid Dynamics with Intrathecally Administered Radioiodinated Human Serum Albumin ($^{125}\text{I}\text{HSA}$)" (*Canadian Medical Association Journal*, vol. 97, no. 10, Sept. 2, 1967, pp. 493-503).
- TATOR, C. H., SHEPPARD, R. H., TURNER, V. M., and FLEMING, J. F. R. "A Radioisotopic Test for Communicating Hydrocephalus" (*Journal of Neurosurgery*, vol. 28, 1968, pp. 327-40).
- THOMPSON, H. G. "The Clinical Approach to the Patient with Cleft Lip and Palate" (*Bulletin of the Hospital for Sick Children*, vol. 16, no. 1, 1967, pp. 1-8).
- "Double Sickie Flap: One Stage Hypospadias Repair" (*Plastic and Reconstructive Surgery*, vol. 40, no. 6, 1967, pp. 575-80).
- TRUSLER, G. A., and BARTLETT, G. S. "The Role of Splenectomy in the Treatment of Thalassemia Major" (*Journal of Pediatric Surgery*, vol. 2, 1967, p. 55).
- TRUSLER, G. A., MUSTARD, W. T., and KEITH, J. D. "The Role of Pacemaker Therapy in Congenital Complete Heart Block" (*Journal of Thoracic and Cardiovascular Surgery*, vol. 55, 1968, p. 105).
- TRUSLER, G. A., and ZINGG, W. (with SROUJI, M. N.) "Influence of THAM on Survival in Metabolic Acidosis due to Hypoperfusion" (*Journal of Pediatric Surgery*, vol. 2, 1967, p. 44).
- VANDERLINDEN, R. G. (with DRAKE, C. G.) "The Late Consequences of Incomplete Surgical Treatment of Cerebral Aneurysms" (*Journal of Neurosurgery*, vol. 27, no. 3, 1967, pp. 226-38).
- WILEY, A. M. "Pathological and Clinical Aspects of Degenerative Disease of the Knee" (*Canadian Journal of Surgery*, vol. 11, Jan. 1968, pp. 14-22).
- WILLIAMS, W. G., SPRATT, E. H., COHOON, W. J., and BAIRD, R. J. "Allotransplantation of the Mitral Valve with Preservation of Papillary Muscle Function" (*Circulation*, vol. 36, supp. 2, Oct. 1967, pp. 271-2).
- YAO, J., THOMPSON, M. W., TRUSLER, G. A., and TRIMBLE, A. S. "Familial Atrial Septal Defect of the Primum Type" (*Canadian Medical Association Journal*, vol. 98, no. 4, Jan. 27, 1968, pp. 218-19).
- ZINGG, W., BAINES, W. D., and MATHER, A. N. "Errors in Intra-arterial Blood-Pressure Measurements" (*Canadian Journal of Surgery*, vol. 11, Jan. 1968, pp. 93-6).

FACULTY OF LAW

- ALEXANDER, E. R. Review, *University of Toronto Law Journal*, vol. 17, 1967, p. 371.
- BAXTER, I. F. G. *Essays in Private Law*. Toronto: University of Toronto Press, 1966. Pp. 210.
- *The Law of Banking* (2nd ed.). Toronto: Carswell, 1967. Pp. 503.
- *Study of the Family Law Project - Property Subjects* (Director of Project). Ontario Law Reform Commission, 1967. Pp. 568.
- CRAWFORD, B. E. "Restitution: Mistake of Law and Practical Compulsion" (*University of Toronto Law Journal*, vol. 17, 1967, pp. 344-54).
- Review, *University of Toronto Law Journal*, vol. 18, 1968, p. 222.
- FRIEDLAND, M. L. *Cases and Materials on Criminal Law and Procedure*. Toronto: University of Toronto Press, 1967. Pp. 539.
- "Double Jeopardy and the Rule against Unreasonably Splitting a Case" (*University of Toronto Law Journal*, vol. 17, 1967, pp. 249-77).
- "New Trial after an Appeal from Conviction" (*Law Quarterly Review*, vol. 84, 1968, pp. 48-63, 185-223).
- *Report on Magistrates' Courts: Functioning and Facilities*; prepared for the Canadian Committee on Corrections (the Ouimet Committee). 1967. Pp. 37 (mimeo).
- MACDONALD, R. ST. J. (ed.) *University of Toronto Law Journal*. Quarterly. 1968.
- "The United Nations High Commissioner for Human Rights" (*Canadian Yearbook of International Law*, vol. 5, 1967, pp. 84-118).
- McNAIRN, C. H. Review, *University of Toronto Law Journal*, vol. 18, 1968, p. 114.
- MILNER, J. B. "Academic Freedom and Tenure in the Young University" (*C.A.U.T./A.C.P.U. Bulletin*, vol. 16, no. 2, 1967, pp. 54-7).
- "Financing Local Improvements for Development"; in *Report of the Special Tax Conference, 1968*, Canadian Tax Foundation and Bureau of Municipal Research, pp. 80-7. 1968.
- "Individual Control of Unit Development in Toronto"; in *Planning the Future Residential Environment*, Proceedings of the 10th Annual Conference of the Organization of Cornell Planners, pp. 8-18. 1967. Mimeographed.
- "The Lawyer's Role in Land-Use Planning" (*Alberta Law Review*, vol. 5, 1967, pp. 119-34).
- *Tentative Proposals for the Reform of the Ontario Law Relating to Community*

- Planning and Land Use Controls*. Ontario Law Reform Commission, 1967. Pp. 103. Mimeographed.
- MORRIS, G. L. "Les Provinces et les affaires étrangères" (*Le Devoir*, April 19 and 20, 1968).
 ——— "The Treaty-Making Power: A Canadian Dilemma" (*Canadian Bar Review*, vol. 45, 1967, pp. 478-512).
- Reviews, *International Journal*, vol. 22, 1967, p. 674; vol. 23, 1968, p. 146.
- RISK, R. C. B. "Condominiums and Canada" (*University of Toronto Law Journal*, vol. 18, 1968, pp. 1-72).
- SHERBANUK, D. J. *The Concept of Income - The Receipts Side*. Studies of the Royal Commission on Taxation, no. 20. Ottawa: Queen's Printer, 1968. Pp. 221.
- *Specific Types of Personal Income*. Studies of the Royal Commission on Taxation, no. 16. Ottawa: Queen's Printer, 1967. Pp. 277.
- WILLIS, J. "Methods of Appointing Judges - An Introduction" (*Canadian Legal Studies*, vol. 1, 1967, pp. 216-19).

FACULTY OF APPLIED SCIENCE AND ENGINEERING

CHEMICAL ENGINEERING

- ANDREWS, D. G. "Power from Nuclear Fission" (*Science Affairs*, vol. 1, no. 3, 1967-8, pp. 61-4).
- ANDREWS, D. G., and AL-SHAHRISTANI, H. "The Variation of Nucleate Boiling of Toluene with Liquid Velocity and Subcooling" (*Canadian Journal of Chemical Engineering*, vol. 46, 1968, pp. 37-40).
- ANDREWS, D. G., HOOPER, F. C., and BUTT, P. "Velocity, Subcooling and Surface Effects in the Departure from Nucleate Boiling of Organic Binaries" (*Canadian Journal of Chemical Engineering*, vol. 46, no. 3, 1968, pp. 194-9).
- ANDREWS, D. G., and OZAIR, V. "Development of a Sensitive Gamma Counter Direct-Reading in Flux and Dose Rate" (*Transactions of the American Nuclear Society*, vol. 11, no. 1, 1968, pp. 66-7).
- ANDREWS, D. G., and TANNER, C. J. "Buckling Measurements in a Heavy-Water Superlattice" (*Transactions of the American Nuclear Society*, vol. 11, no. 1, 1968, pp. 252-3).
- ANDREWS, D. G., and TREMBLAY, P. E. "Two Phase Pressure Gradient, Critical Flow, and the Tremblay Number" (*Transactions of the American Nuclear Society*, vol. 11, no. 1, 1968, pp. 345-6).
- BARHAM, D., et al. "The Dissolution of Magnesium Aluminate Spinel in Sodium Silicate Melts" (*Transactions of the British Ceramic Society*, vol. 67, no. 2, 1968, pp. 49-57).
- BASMADJIAN, D. "Determination of Isotope Separation Factors at Elevated Pressures" (*Industrial and Engineering Chemistry Fundamentals*, vol. 6, 1967, pp. 313-15).
- BASMADJIAN, D., and PAN, C.-Y. "Constant Pattern Adiabatic Fixed-Bed Adsorption" (*Chemical Engineering Science*, vol. 22, 1967, pp. 285-97).
- CHAFFEY, C. E. "Orientation of a Chain Macromolecule with Very High Internal Viscosity in a Velocity Field"; in *Polymer Systems Deformation and Flow*, chapter 24, pp. 319-24. London: Macmillan, 1968.
- CHAFFEY, C. E., et al. "Rheological Behaviour of a Dilute Emulsion" (*Journal of Colloid and Interface Science*, vol. 26, 1968, pp. 152-60).
- CHARLES, M. E., and CHOU, C. H. "The Onset of Interfacial Wave Formation in Co-current Gas-Liquid Stratified Flow" (*Canadian Journal of Chemical Engineering*, vol. 46, 1968, pp. 143-4).
- CHARLES, M. E., and FIGUEIREDO, O. "Critical Fluid Velocity and Power Requirement for the Startup of a Capsule Pipeline" (*Canadian Journal of Chemical Engineering*, vol. 46, 1968, pp. 62-6).
- CHARLES, M. E., and HODGSON, G. W. "Method and Apparatus for Transporting Package Material in a Pipeline" (*United States Patent 3,328,089*, 1967).
- CHARLES, M. E., and SESTAK, JIRI. "Limiting Values of the Nusselt Number for Heat Transfer to the Pipeline Flow of Non-Newtonian Fluids with Arbitrary Internal Heat Generation" (*Chemical Engineering Progress Symposium Series*, vol. 64, no. 82, 1968, p. 212).
- GRAYDON, W. F., et al. "Cation Exchange across Ion-Exchange Membranes" (*Journal of Physical Chemistry*, vol. 71, 1967, pp. 435-9).
- "Ion-Exchange Membrane Potentials" (*Journal of Physical Chemistry*, vol. 70, 1966, pp. 3711-14).
- "Mass Transfer from Single Bubbles under Distillation Conditions" (*Transactions of the Institution of Chemical Engineers*, vol. 46, no. 5, June 1968, pp. T172-6).
- HUMMEL, R. L., and HENLEY, J. J. "A Third Factor in Boiling Nucleation" (*Industrial and Engineering Chemistry - Fundamentals*, vol. 6, no. 4, 1967, pp. 603-6).
- HUMMEL, R. L., and POPOVICH, A. T. "Experimental Study of the Viscous Sublayer in

- Turbulent Pipe Flow" (*American Institute of Chemical Engineers*, vol. 13, Sept. 1967, pp. 854-60).
- HUMMEL, R. L., SMITH, J. W., and VANECEK, V. "Control of SO₂ Pollution from Low Cost Fuels" (*Water and Pollution Control*, vol. 106, no. 7, 1968, p. 36).
- JERVIS, R. E. "Activation Analysis in Forensic Science" (survey paper); in *Symposium Volume on Nuclear Activation Techniques in the Life Sciences*, pp. 645-59. Vienna: International Atomic Energy Agency, 1967.
- "Present Status of Activation Analysis Applications in Criminalistics" (*Radioisotopes*, vol. 17, no. 1, 1968, pp. 25-40).
- "The Value of Neutron Activation Analysis Hair Comparison in Forensic Investigations - A Critique" (*Proceedings of the First International Conference on Forensic Activation Analysis*, San Diego, 1967, pp. 287-94).
- JERVIS, R. E., *et al.* "Applications of High Resolution Ge(Li) Gamma Spectrometry in Criminalistics" (*Transactions of American Nuclear Society*, vol. 11, no. 1, 1968, p. 82).
- "Detection of Pollutants in Airborne Particulates by Activation Analysis" (*ibid.*, p. 50).
- "Individualization by Neutron Activation Analysis" (*Law Enforcement, Science and Technology*, 1967, pp. 257-66).
- "Kinetic Radio Chemical Study of Cobalt (II) Ion Substitution in Zinc (II) EDTA in Aqueous Buffer" (*Journal of Inorganic and Nuclear Chemistry*, vol. 29, no. 8, 1967, p. 1973).
- JERVIS, R. E., RAYUDU, G. V. S., and Tiefenbach, B. "Neutron Activation Determination of Trace Mercury in Canadian Foods" (*Transactions of American Nuclear Society*, vol. 11, no. 1, 1968, p. 54).
- "Neutron Activation Typing of Seizure Heroin Capsules" (*ibid.*, p. 81).
- JERVIS, R. E., and WONG, K. Y. "Chromatographic Group Separation Scheme used with Gamma Spectrometry for Multi-element Activation Analysis Surveys" (*Transactions of American Nuclear Society*, vol. 11, no. 1, 1968, pp. 137-58).
- MISSEN, R. W., and SMITH, W. R. "On the Two-Derivative Method of Optimization" (*Canadian Journal of Chemical Engineering*, vol. 45, Dec. 1967, pp. 346-8).
- RAPSON, W. H. "Dynamic Bleaching Process" (*Canadian Patent* 783,483; *United Kingdom Patent* 1,100,724).
- "The Feasibility of Recovery of Bleach Plant Effluent to Eliminate Water Pollution by Kraft Pulp Mills" (*Pulp and Paper Magazine of Canada*, vol. 68, no. 12, 1967, pp. T635-40).
- "Groundwood Pulp Bleaching" (*Canadian Patent* 783,484).
- "New Concepts for Stream Improvement by Recovery of Bleach Plant Liquors from Kraft Pulp Mills" (*Pulp and Paper Magazine of Canada*, vol. 69, no. 6, 1968, pp. T161-6).
- "Processes for Bleaching Paper" (*United Kingdom Patent* 1,102,456).
- "Processing of Pulp" (*United Kingdom Patent* 1,106,841).
- "Rapson Kraft Chemical Supply System" (*Canadian Patent* 783,482).
- "Rapson Single Vessel Process" (*Chile Patent* 775/65; *United Arab Republic Patent* 6572).
- RAPSON, W. H., *et al.* "The Deep Freeze Combined Feeds Recovery System" (*United States Patent* 3,341,288; *United Kingdom Patent* 1,057,017).
- "Effets ioniques spécifiques sur le taux de formation du ClO₂ par la réaction chlorure-chlorate" (*Canadian Journal of Chemistry*, vol. 46, 1968, pp. 979-85).
- "The Infrared Spectrum of Oxidized Cellulose: Part I. The Determination of Specific Oxidized Groups in Cellulose by Combined Chemical Treatment and Infrared Spectroscopy" (*Pulp and Paper Magazine of Canada*, vol. 68, no. 11, 1967, pp. T587-91).
- "The Kinetics and Mechanism of the Chloride-Chlorate Reaction" (*Canadian Journal of Chemical Engineering*, vol. 45, no. 12, 1967, pp. 349-55).
- RAPSON, W. H., and FLEURY, R. A. "Characterization of Chromophoric Groups in Groundwood and Lignin Model Compounds by Reaction with Specific Reducing Agents" (*Pulp and Paper Magazine of Canada*, vol. 69, no. 6, 1968, pp. T154-60).
- RAPSON, W. H., WAYMAN, M., and ANDERSON, C. B. "Bleaching Characteristics of Heartwood and Sapwood Groundwood of Jack Pine and Western Hemlock" (*Pulp and Paper Magazine of Canada*, vol. 69, no. 9, 1968, pp. T225-34).
- RAPSON, W. H., WAYMAN, M., ANDERSON, C. B., *et al.* "A Laboratory Continuous Paper-Bleaching Machine" (*Pulp and Paper Magazine of Canada*, vol. 68, no. 12, 1967, pp. T641-4).
- SANDLER, S., PHILLIPS, M. J., and ROZEIU, A. M. *Chemistry Laboratory Manual - First Year*. Toronto: University of Toronto Press, 1967.
- SANDLER, S., and VARKEY, T. J. "Analysis of 10⁻⁵ Molar Aqueous Solutions of the Oxidation Products of Isopentane by Gas-Liquid Chromatography" (*Analytical Chemistry*, vol. 40, no. 2, 1968, pp. 399-402).
- SMITH, J. W. Comments in *Proceedings of the International Symposium on Fluidization*, ed. A. A. H. Drinkenburg, pp. 29, 37, 111, 453. Netherlands University Press, June 1967.
- "Improved Kraft Process" (*South African Patent* 67/4810).
- "Manufacture of Cellulosic Pulp" (*United Kingdom Patent* 1,106,842; *Egyptian Patent* 6992; *Austrian Patent* 257, 341; *Swiss Patent* 438,913).

- SMITH, J. W., *et al.* "Heat Transfer to Solid-Liquid Suspensions in an Agitated Vessel" (*Industrial and Engineering Chemistry - Process Design and Development*, vol. 1, April 1968, pp. 188-93).
- SMITH, J. W., and GOWEN, R. A. "The Effect of Prandtl Number on Temperature Profiles for Heat Transfer in Turbulent Pipe Flow" (*Chemical Engineering Science*, vol. 22, no. 12, 1967, pp. 1701-11).
- SMITH, J. W., GOWEN, R. A., and CHARLES, M. E. "Turbulent Heat Transfer and Temperature Profiles in a Rifled Pipe" (*Chemical Engineering Science*, vol. 23, no. 7, 1967, pp. 751-7).
- SMITH, J. W., GOWEN, R. A., and WASMUND, B. "Eddy Diffusion Coefficients and Temperature Profiles for Turbulent Heat Transfer to Water in Pipes" (*Chemical Engineering Progress Symposium Series*, vol. 63, no. 77, 1967, pp. 92-101).
- SMITH, J. W., HUMMEL, R. L., and RYAN, E. J. "Dynamically Preferred Particle Orientations in Particulate Fluidized Beds" (*Proceedings of the International Symposium on Fluidization*, Eindhoven, June 6-9, 1967).
- SMITH, J. W., and KING, D. H. "Wall Mass Transfer in Liquid-Fluidized Beds" (*Canadian Journal of Chemical Engineering*, vol. 45, Dec. 1967, pp. 329-33).
- SPINNER, I. H., HUNTER, R. F., SIMMONS, P. J., and TAN, K. S. "Reciprocating Flow Ion Exchange. Part II. Application to Saline Water Softening" (*Canadian Journal of Chemical Engineering*, vol. 46, no. 1, 1968, pp. 57-61).
- TRASS, O. "Summer Student Engineering Projects in Industry" (*The Professional Engineer and Engineering Digest*, vol. 29, no. 5, 1968, pp. 50-1).
- WAYMAN, M. "Process of Lowering Resin Content of Sulphite Pulp" (*Swedish Patent* 220,856).
- WAYMAN, M., *et al.* "Mill Experiences in Bleaching Pine Groundwood" (*Pulp and Paper Magazine of Canada*, vol. 68, 1967, pp. 653).
- WAYMAN, M., ANDERSON, C. B., and RAPSON, W. H. "Bleaching Characteristics of Heartwood and Sapwood Groundwoods of Jack Pine and Western Hemlock" (*Pulp and Paper Magazine of Canada*, May 3, 1968, pp. 51-60).
- WAYMAN, M., RAPSON, W. H., ANDERSON, C. B., *et al.* "A Laboratory Continuous Paper-Bleaching Machine" (*Pulp and Paper Magazine of Canada*, vol. 68, no. 12, 1967, pp. T641-4).
- WOODHAMS, R. T. "Process for the Vulcanization of Polymers" (*Canadian Patent* 783,104).
- WOODHAMS, R. T., *et al.* "Process for the Polymerization of Episulfides" (*Canadian Patent* 778,436).

CIVIL ENGINEERING

- BIRD, S. J. G. *Airphoto Interpretation of Soils and Rocks*. Published by the author, Sept. 1967. Pp. 156.
- COLLINS, R. A., HERSHFIELD, C., and TORK, A. "Roof Design of the Ontario Government Pavilion at Expo 67" (*Engineering Journal*, vol. 51, no. 3, March 1968, pp. 30-8).
- DAVIS, M. M. (with WILLIAMS, K. M.) *Vehicle Operating Characteristics on Outer Loop Deceleration Lanes of Interchanges*. Ontario Joint Highway Research Programme, Report no. 43, March 1968. Pp. 48.
- DE LORY, F. A. (with SALVAS, R. J.) *An Investigation of Discrepancies in Undrained Shearing Strength Test Results in Clay*. Ontario Joint Highway Research Programme, Report no. 45, April 1967. Pp. 68.
- SCHWAIGHOFER, J. "Door Openings in Shear Walls" (*Journal of the American Concrete Institute*, vol. 64, no. 11, Nov. 1967, pp. 730-4).
- SCHWAIGHOFER, J., *et al.* "The Interaction of Shear Walls Connected Solely through Slabs"; in *Tall Buildings*, ed. A. Coull and B. Stafford Smith, pp. 157-73. Toronto: Pergamon Press, 1967.
- SCHWAIGHOFER, J. (with MICROYS, H. F., *et al.*) "Stresses at Delaminations"; in *Mechanics of the Solid State*, ed. F. P. J. Rimrott and J. Schwaighofer, pp. 207-17. Toronto: University of Toronto Press, 1968.
- SOBERMAN, R. M., *et al.* "A Vehicle Performance Model for Highways in Developing Countries" (*Traffic Quarterly*, vol. 21, no. 3, July 1967, pp. 443-62).
- VLCEK, J. "Některé výsledky experimentálního průzkumu stochastické povahy letecké fotografie" (*Geodetický a kartografický obzor*, vol. 13, no. 12, Dec. 1967, pp. 325-7).
- "Study of Analytical Models" (*Photogrammetric Engineering*, vol. 33, no. 11, Nov. 1967, pp. 1276-81).

ELECTRICAL ENGINEERING

- ABDELMESSIH, S., and SINCLAIR, G. "Treatment of Singularities in Scattering from Perfectly Conducting Polygonal Cylinders - A Numerical Technique" (*Canadian Journal of Physics*, vol. 45, 1967, pp. 1305-18).
- BILLINGSLEY, J. B., and SINCLAIR, G. "Numerical Solutions to Electromagnetic Scattering from Strips, Finite Wedges and Notched Circular Cylinders" (*Canadian Journal of Physics*, vol. 44, 1966, pp. 3217-25).

- BROTEN, N. W., CLARKE, R. W., LEGG, T. H., LOCKE, J. L., McLEISH, C. W., RICHARDS, R. S., YEN, J. L., CHISHOLM, R. M., and GALT, J. A. "Diameters of Some Quasars at a Wavelength of 66.9 cm" (*Nature*, vol. 216, no. 5110, Oct. 7, 1967, pp. 44-5).
- BROTEN, N. W., LEGG, T. H., LOCKE, J. L., McLEISH, C. W., RICHARDS, R. S., CHISHOLM, R. M., GUSH, H. P., YEN, J. L., and GALT, J. A. "Observations of Quasars using Interferometer Baselines up to 3074 km" (*Nature*, vol. 215, no. 5096, July 1, 1967, p. 38).
- "Long Baseline Interferometry; a New Technique" (*Science*, vol. 156, June 1967, p. 1592).
- "Radio Interferometry with a Baseline of 3074 km" (*Astronomical Journal*, vol. 72, no. 7, Sept. 1967, p. 787).
- CHIDAMBARA, M. R., and DAVISON, E. J. "Further Comments on a Method for Simplifying Linear Dynamic Systems" (*Institute of Electrical and Electronic Engineers, Transactions on Automatic Control*, vol. AC-12, no. 6, Dec. 1967, pp. 799-800).
- DAVISON, E. J. "Application of the Describing Function Technique in a Single Loop Feedback System with Two Nonlinearities" (*Institute of Electrical and Electronic Engineers, Transactions on Automatic Control*, vol. AC-13, no. 2, April 1968, pp. 168-70).
- "A Computational Way of Determining Stability of Periodic Linear Systems" (*International Journal of Control*, vol. 7, no. 3, March 1968, pp. 247-50).
- "Control of a Distillation Column with Pressure Variation" (*Transactions of the Institution of Chemical Engineers*, vol. 45, no. 6, July 1967, pp. 229-50).
- "A High Order Crank-Nicolson Technique for Solving Differential Equations" (*Computer Journal*, vol. 10, no. 2, Aug. 1967, pp. 195-7).
- "The Identification of Parameters in Large Linear Dynamic Systems" (*International Journal of Control*, vol. 5, no. 2, Aug. 1967, pp. 123-30).
- "A New Method for Simplifying Large Linear Dynamic Systems" (*Institute of Electrical and Electronic Engineers, Transactions on Automatic Control*, vol. AC-13, no. 2, April 1968, pp. 214-16).
- "The Numerical Solution of Large Systems of Linear Differential Equations" (*American Institute of Chemical Engineers Journal*, vol. 14, no. 1, Jan. 1968, pp. 46-50).
- "The Simplification of Large Linear Systems" (*Control*, May 1968, pp. 418-19).
- "Some Sufficient Conditions for the Stability of a Linear Time-Varying System" (*International Journal of Control*, vol. 7, no. 4, April 1968, pp. 377-80).
- "The Stability of a Nonlinear Time-Varying System" (*Institute of Electrical and Electronic Engineers, Transactions on Automatic Control*, vol. AC-12, no. 5, Oct. 1967, pp. 627-8).
- "The Stability of an n^{th} -Order Nonlinear Time-Varying Differential System" (*ibid.*, vol. AC-13, no. 1, Feb. 1968, pp. 99-102).
- DAVISON, E. J., and MONRO, D. M. "A Computational Technique for Finding Time Optimal Controls" (*Proceedings, Hawaii International Conference on System Sciences*, Jan. 1968, pp. 341-4).
- DAVISON, E. J., VARAIYA, P. P., and SILVERMAN, L. M. "Controllability of a Class of Nonlinear Time-Variable Systems" (*Institute of Electrical and Electronic Engineers, Transactions on Automatic Control*, vol. AC-12, no. 6, Dec. 1967, pp. 791-2).
- IIZUKA, K., and YEN, J. L. "Surface Currents on Triangular and Square Metal Cylinders" (*Institute of Electrical and Electronic Engineers, Transactions on Antennas and Propagation*, vol. AP-15, no. 6, Nov. 1967, pp. 795-801).
- PRAHASHANKAR, K., and JANISCHESKYJ, W. "Digital Simulation and Analysis of Power System Dynamic Performance - Part 1, Effects of Synchronous Machine Amortisseur Circuits and Control Mechanisms" (*Institute of Electrical and Electronic Engineers, Winter Power Meeting*, 1968, paper no. 68, CP-94-PWR).
- "Digital Simulation of Multi-Machine Power Systems for Stability Studies" (*Institute of Electrical and Electronic Engineers, Transactions on Power Apparatus and Systems*, vol. PAS-87, no. 1, Jan. 1968, pp. 73-80).
- RAMAMOORTY, M., and SLEMON, G. R. "Analysis of Synchronous Machine Transients using Phase Parameters" (*Institute of Electrical and Electronic Engineers, Summer Power Conference*, 1967, paper no. 31CP67-469).
- ROBERTSON, S. D. T., and MEIKLE, N. "High Speed Phase Comparison Relay Based on Zero Crossings: Part I, Theory; Part II, Design" (*Institute of Electrical and Electronic Engineers, Transactions on Power Apparatus and Systems*, vol. PAS-87, no. 3, March 1968, pp. 769-70, 770-5).
- SLEMON, G. R., ROBERTSON, S. D. T., and RAMAMOORTY, M. "High Speed Protection of Power System Based on Improved Power System Models" (*Conférence Internationale des Grands Réseaux Electriques*, June 1968, paper no. 31-09).
- STRAUGHEN, A. "Opposed-Torque Drives for Movable-Span Bridges" (*The Engineering Journal*, vol. 50, no. 8, Aug. 1967, pp. 22-5).
- VAN KOUHNETT, A. L. "Infinite Planar and Collinear Arrays of Cylindrical Antennas" (*Canadian Journal of Physics*, vol. 45, Sept. 1967, p. 3107).
- VAN KOUHNETT, A. L., and YEN, J. L. "Properties of a Cylindrical Antenna in an Infinite-Planar or Collinear Array" (*Institute of Electrical and Electronic Engineers, Transactions on Antennas and Propagation*, vol. AP-15, no. 6, Nov. 1967, pp. 750-7).

- YEN, J. L. "Nonlinear Scattering by a Plasma Cylinder"; in *Electromagnetic Wave Theory*, ed. J. Brown, pp. 631-2. Toronto: Pergamon Press, 1967.
- YIP, G. L., and SESHADRI, S. R. "Surface Waves along an Axially Magnetized Plasma Column - 1: Symmetric Modes" (*Canadian Journal of Physics*, vol. 45, Sept. 1967, pp. 2887-991).
- "Radiation from an Electric Dipole in an Axially Magnetized Plasma Column - Dipolar Modes" (*Canadian Journal of Physics*, vol. 45, Nov. 1967, pp. 3627-48).

INDUSTRIAL ENGINEERING

- ABDELMESSIH, S. M., et al. "Investigation of Noise in UHF Diodes" (*Proceedings of the National Electronics Conference*, vol. 23, Oct. 1967, pp. 455-60).
- ABDELMESSIH, S. M., and SINCLAIR, G. "Treatment of Singularities in Scattering from Perfectly Conducting Polygonal Cylinders - A Numerical Technique" (*Canadian Journal of Physics*, vol. 45, 1967, pp. 1305-18).
- BUZACOTT, J. A. "Prediction of the Efficiency of Production Systems without Internal Storage" (*International Journal of Production Research*, vol. 6, no. 3, 1967, pp. 173-88).
- PORTER, A. "Information, Pattern and Enlightenment" (*Engineering Journal*, vol. 51, no. 6, June 1968, pp. 9-12).
- POSNER, M., and BERNHOLTZ, B. "Two Stage Closed Queueing Systems with Time Lags" (*Journal of the Canadian Operational Research Society*, vol. 5, no. 2, July 1967, pp. 82-99).
- TRACZ, G. S. "Optimal Control Problems: A Second Order Computational Scheme" (*Journal of the Canadian Operational Research Society*, vol. 5, no. 3, Nov. 1967, pp. 175-84).
- "A Selected Bibliography on the Application of Optimal Control Theory to Economic and Business Systems, Management Science and Operations Research" (*Operations Research*, vol. 16, no. 1, Jan.-Feb. 1968, pp. 174-86).

MECHANICAL ENGINEERING

- BAINES, W. D., ZINGG, W., and MATHUR, A. N. "Errors in Intra-arterial Blood Pressure Measurements" (*Canadian Journal of Surgery*, vol. 11, no. 1, Jan. 1968, pp. 93-6).
- CURRIE, I. G. "The Effect of Heating Rate on the Stability of Stationary Fluids" (*Journal of Fluid Mechanics*, vol. 29, part 2, Aug. 1967, pp. 337-47).
- HARTLEN, R. T., and JONES, L. E. "Metrology of the Photo-Grid Determination of Fracture Strain for a Plate in Bending" (*Journal of Strain Analysis*, vol. 3, no. 2, April 1968, pp. 96-7).
- JONES, L. E. "Canada's Centennial" (leading editorial in *Water Power*, vol. 19, no. 7, July 1967, pp. 255-6).
- JONES, L. E., and INGLE, R. N. Discussion, *Transactions of the American Society of Mechanical Engineers, Journal of Basic Engineering*, vol. 89, series D, no. 4, Dec. 1967, p. 778.
- JONES, L. E., and RIMROTT, F. P. J. (eds.) *Canadian Congress of Applied Mechanics 1967, Proceedings*, vols. 1 and 2. Toronto: University of Toronto, Department of Mechanical Engineering, 1968. Pp. 673.
- KARNOPP, B. H. (ed.) *Canadian Congress of Applied Mechanics 1967, Proceedings*, vol. 3. Toronto: University of Toronto, Department of Mechanical Engineering, 1968. Pp. 250.
- "Complementary Variational Principles in Linear Vibrations" (*Journal of the Franklin Institute*, vol. 284, no. 1, July 1967, pp. 56-68).
- "Duality Relations in the Analysis of Beam Oscillations" (*Zeitschrift für angewandte Mathematik und Physik*, vol. 18, no. 4, 1967, pp. 575-80).
- Review, *Journal of the Franklin Institute*, vol. 284, no. 3, Sept. 1967, pp. 204-5.
- KEFFER, J. F. Reviews, *Applied Mechanics Reviews*, vol. 21, no. 5, May 1968, p. 500; no. 6, June 1968, p. 605.
- KLEMEŠ, V. "Reliability Estimates for a Storage Reservoir with Seasonal Input" (*Proceedings, International Hydrology Symposium*, Fort Collins, Colorado, Sept. 1967, pp. 414-21).
- LORD, G. R., and LEUTHEUSSER, H. J. "Wind-Tunnel Modelling of Stack-Gas Discharge"; in *Proceedings, Banff Conference on Pollution*, pp. 1-12. Calgary: University of Calgary Press, 1968.
- MOROZ, W. J. "A Lake Breeze on the Eastern Shore of Lake Michigan: Observations and Model" (*Journal of Atmospheric Sciences*, vol. 24, no. 4, July 1967, pp. 337-55).
- MOROZ, W. J. (with HEWSON, E. W., and GILL, G. C.) "Variation of a Lake Breeze Wind with Time near the Lakeshore" (*Proceedings, 10th Conference on Great Lakes Research*, Toronto, 1967, pp. 221-30).
- MOROZ, W. J., and KOCZKUR, E. "Plume Rise and Dispersion near the Shoreline of a Large Lake when Flow Patterns are Dominated by the Lake Breeze" (*Proceedings, United States Atomic Energy Commission, Meteorological Meeting*, Chalk River, Sept. 1967, pp. 215-28).
- PRATTE, B. D., and BAINES, W. D. "Profiles of the Round Turbulent Jet in a Cross Flow" (*Journal of the Hydraulics Division, Proceedings of the American Society of Civil Engineers*, vol. 93, no. HY6, Nov. 1967, pp. 53-64).

- RIMROTT, F. P. J. "Entwurf und Berechnung von Lapprohren" (*Luftfahrttechnik-Raumfahrttechnik*, vol. 14, no. 1, 1968, pp. 1-6).
- "The Hyperbolic Sine Creep Law in Engineering Practice"; in *Mechanics of the Solid State*, ed. F. P. J. Rimrott and J. Schwaighofer, pp. 168-80. Toronto: University of Toronto Press, 1968.
- "Secondary Effects in Pure Bending of Overlapped, Thin-Walled Tubular Spacecraft Booms" (*American Society of Mechanical Engineers, Winter Annual Meeting*, 1967, paper 67-WA/DE-16, pp. 1-11).
- RIMROTT, F. P. J., and SCHWAIGHOFER, J. (eds.) *Mechanics of the Solid State*. Toronto: University of Toronto Press, 1968. Pp. 277.
- SCOTT, D. S. Review, *Canadian Aeronautics and Space Journal*, vol. 13, no. 9, Nov. 1967, pp. 445-6.
- SCOTT, D. S. (with ANDERSON, T. P.) "Reverse Flow behind the Reflected Shock in a Multi-circuit Conical Electromagnetic Shock Tube" (*Proceedings, 9th Symposium on Engineering Aspects of Magnetohydrodynamics*, 1968, pp. 1-14).
- TABARROK, B. "Some Remarks on the Zero Frequency Modes" (*Journal of the Royal Aeronautical Society*, vol. 72, no. 685, Jan. 1968, pp. 68-70).
- TABARROK, B., and KARNOPP, B. H. "Analysis of the Oscillations of the Timoshenko Beam" (*Zeitschrift für angewandte Mathematik und Physik*, vol. 18, no. 4, Aug. 1967, pp. 580-7).
- TABARROK, B. (with SIMPSON, A.) "On Kron's Eigenvalue Procedure and Related Methods of Frequency Analysis" (*Quarterly Journal of Mechanics and Applied Mathematics*, vol. 21, no. 1, Feb. 1968, pp. 1-39).
- WARD, C. A. (with MINTZER, D.) "Equilibration of a Single-Species Two-Temperature Gas Mixture"; in *Proceedings, 5th Symposium of Rarefied Gas Dynamics*, vol. 1, pp. 661-74. New York: Academic Press, 1967.

University of Toronto, Department of Mechanical Engineering, Technical Publication Series:

- ALLAN, A. B., ALLEN, D. L., and LEUTHEUSSER, H. J. "Departmental Annual Report 1967" (TP-6801, May 1967, 45 pages).
- HENRY, R. P., and SCOTT, D. S. "Ion Slip Limitations on Currents in Hall Effect Plasma Accelerators" (TP-6805, June 1968, 158 pages).
- KARNOPP, B. H., and TABARROK, B. "On the Application of the Complementary Energy Method to the Analysis of Dynamic Systems" (TP-6804, June 1968, 21 pages).
- NG., G. K. "Mechanical and Thermal Bending of STEMS" (TP-6802, May 1968, 35 pages).
- PLATTEN, J. L., and KEFFER, J. F. "Entrainment in Deflected Axisymmetric Jets of Various Angles to the Stream" (TP-6808, June 1968, 58 pages).
- RIMROTT, F. P. J., and PINTO, J. G. "On Uniform Torsion of STEMS" (TP-6803, June 1968, 57 pages).
- SCOTT, D. S. "Evidence of Supersonic Reverse Flow behind the Reflected Wave in an Electromagnetic Shock Tube" (TP-6807, June 1968, 21 pages).
- "Design and Performance of a Multi-circuit Conical Electromagnetic Shock Tube" (TP-6806, June 1968, 58 pages).
- WATT, W. E. "The Velocity-Temperature Mixing Layer" (TP-6705, Sept. 1967, 93 pages).

METALLURGY AND MATERIALS SCIENCE

- AUST, K. T. "Some Physical and Chemical Properties of Grain Boundaries"; in *Surfaces and Interfaces. I, Chemical and Physical Characteristics*, pp. 435-56. Syracuse: Syracuse University Press, 1967.
- AUST, K. T. (with ARMYO, J. S., KOCH, E. F., and WESTBROOK, J. H.) "Intergranular Corrosion and Electron Microscopic Studies of Austenitic Stainless Steels" (*American Society for Metals Transactions Quarterly*, vol. 60, no. 3, Sept. 1967, pp. 360-72).
- AUST, K. T. (with FERRAN, G., and CRZERON, G.) "Relations d'orientation et densités de dislocations dans le cuivre de haute pureté" (*Mémoires Scientifiques Rev. Métallurgie*, vol. 64, no. 12, Dec. 1967, pp. 1067-78).
- AUST, K. T. (with HANNEMAN, R. E., NIESSEN, P., and WESTBROOK, J. H.) "Solute Induced Hardening near Grain Boundaries in Zone Refined Metals" (*Acta Metallurgica*, vol. 16, no. 3, March 1968, pp. 291-302).
- CRAIG, G. B., and RAMASWAMI, B. "Thermally Activated Deformation in Alpha Zirconium" (*Transactions of the Metallurgical Society of AIME*, vol. 239, 1967, pp. 1226-32).
- CRAIG, G. B. (with DEDO, A., and MILLS, D.) "The Formation of Polygonized Substructure in Deformed Single Crystals of α -Zirconium" (*Journal of Nuclear Materials*, vol. 24, 1967, pp. 237-9).
- FLENGAS, S. N. (with DUTRIZAC, J. E.) "Kinetics of Formation of Sodium Chlorozirconate" (*Canadian Journal of Chemistry*, vol. 45, 1967, p. 2317).
- "Thermal Properties of the Compounds Li_2ZrCl_6 , Li_2HfCl_6 , Na_2ZrCl_6 and K_2ZrCl_6 " (*ibid.*, p. 2313).
- FLENGAS, S. N. (with DUTRIZAC, J. E., and LISTER, R. L.) "Properties of the Solutions of the

- Alkali-Chlorozirconate Compounds in Alkali-Chloride Melts" (*Canadian Journal of Chemistry*, vol. 46, 1968, p. 495).
- FLENGAS, S. N. (with THOMPSON, W. T.) "The Behaviour of a Sulfur Vapour Electrode in Sulfide Melts" (*Canadian Journal of Chemistry*, vol. 46, 1968, p. 1620).
- MILLER, W. A. "Surface Packing Parameters and Reticular Densities in Solids and Liquids" (*Metal Science Journal*, vol. 1, 1967, pp. 138-9).
- MILLER, W. A. (with CHADWICK, G. A.) "On the Magnitude of the Solid/Liquid Interfacial Energy of Pure Metals and its Relation to Grain Boundary Melting" (*Acta Metallurgica*, vol. 15, 1967, pp. 607-14).
- MILLER, W. A. (with WILLIAMS, W. M.) "Anisotropy of Grain Boundary Energy and its Influence on Boundary Morphology in Sheet" (*Acta Metallurgica*, vol. 15, 1967, pp. 1077-9).
- RAMASWAMI, B. and CRAIG, G. B. "Thermally Activated Deformation in Alpha Zirconium" (*Transactions of the Metallurgical Society of AIME*, vol. 239, 1967, pp. 1226-32).
- TOGURI, J. M. (with JANJUA, M. B. I., and DUTRIZAG, J. E.) "The Effect of Thermal History on the Crystallization Behaviour of Selenium" (*Canadian Journal of Physics*, vol. 46, 1968, p. 447).
- "Phase Studies on the Iron-Selenium System" (*Canadian Journal of Chemistry*, vol. 46, 1968, p. 1171).

FACULTY OF FOOD SCIENCES

- ARMSTRONG, IVA L., COLEMAN, PATRICIA H., and McLAREN, BARBARA A. "The Development of a Multi-purpose Therapeutic Loaf" (*Journal of the Canadian Dietetic Association*, vol. 28, no. 3, Sept. 1967, pp. 145-50).
- CIRUNA, Irene K., ARMSTRONG, IVA L., and McLAREN, BARBARA A. "Determination of Magnesium in Food and Human Blood" (*Journal of the Canadian Dietetic Association*, vol. 29, no. 1, March 1968, pp. 18-23).
- McLAREN, BARBARA A. "Nutritional Control of Overweight" (*Canadian Journal of Public Health*, vol. 58, no. 11, Nov. 1967, p. 483).

ONTARIO INSTITUTE FOR STUDIES IN EDUCATION

- ABBEY, D. S. "Are the Effects of Environment on Education Over-rated?" (*School Administration*, vol. 5, no. 5, May 1968, pp. 16-21; *Canadian Architect*, vol. 13, no. 5, May 1968, pp. 49ff.).
- "Educational Needs and Architectural Solutions" (*School Administration*, vol. 4, no. 10, Oct. 1967, pp. 44-51; also as "Educational Institution or 'Expensive Fallout Shelter'?" in *Canadian Architect*, vol. 12, no. 10, Oct. 1967, pp. 68ff.).
- "Kids, Kulture and Curiosity" (*Museum News*, vol. 46, no. 7, March 1968, pp. 30-3).
- ALVI, S. A. "Die Entwicklung von Schuleignungstests für Auslese- und Beratungszwecke in Sekundarschulen"; in *Möglichkeiten und Grenzen der Testanwendung in der Schule*, ed. Karlheinz Ingenkamp and Teresia Marsolek, pp. 669-85. Berlin: Verlag Julius Beltz, 1968.
- "Testanwendung in Pakistan"; in *ibid.*, pp. 189-96.
- ANDREWS, J. H. M. "Education in One Hundred Years of Change" (*The A.T.A. Magazine*, vol. 48, no. 1, Oct. 1967, pp. 34-7).
- AUSUBEL, D. P. "Crucial Psychological Issues in the Objectives, Organization, and Evaluation of the Curriculum Reform Movements" (*Psychology in the Schools*, vol. 4, no. 2, 1967, pp. 111-21; *Journal of Industrial Teacher Education*, vol. 4, 1967, pp. 30-9).
- *Educational Psychology: A Cognitive View*. New York: Holt, Rinehart & Winston, 1967. Pp. xviii, 685.
- "Facilitating Meaningful Verbal Learning in the Classroom" (*Arithmetic Teacher*, vol. 15, 1968, pp. 126-32).
- Review, *American Educational Research Association Journal*, vol. 5, no. 3, May 1968, pp. 421-5.
- BECK, C. M. "Educational Value Statements" (*The Monist*, vol. 52, no. 1, Jan. 1968, pp. 70-86).
- "Utterances which Incorporate a Value Statement" (*American Philosophical Quarterly*, vol. 4, no. 4, Oct. 1967, pp. 291-9).

- BEREITER, C. "Instruction of Three- and Four-year-old Children" (*Child Study*, vol. 29, no. 3, fall 1967, pp. 3-11).
- BHARGAVA, R. P. "Analysis of Variance for Scheffe's Mixed Model for Staircase Design" (*Sankhya*, vol. 29, series A, whole part 4, Dec. 1967).
- BRISON, D. W. (ed.) *Accelerated Learning and Fostering Creativity*. Toronto: oise, 1968. Pp. vi, 22.
- BRISON, D. W., and HILL, JANE (eds.) *Psychology and Early Childhood Education*. Toronto: oise, 1968. Pp. iii, 107.
- BUCHANAN, H. "Educational Research and Cybernetics" (*Ontario Journal of Educational Research*, vol. 10, no. 2, winter 1967-68, pp. 73-81).
- CAPLAN, Gerald. "Barotseland: The Secessionist Challenge to Zambia" (*Journal of Modern African Studies*, vol. 6, no. 3, 1968).
- CRITTENDEN, B. S. Comment on "The Contribution of Schooling to the Learning of Norms" by R. Dreeben (*Harvard Educational Review*, vol. 37, no. 4, fall 1967, pp. 647-50).
- Introduction to *Philosophy and Education*. New York: Columbia University Teachers' College Press, 1967.
- "Status Aims for the School" (mimeographed). Presentation to the Royal Commission on the Aims of Education, published as *Living and Learning*, 1968.
- "Teaching, Educating and Indoctrinating" (*Educational Theory*, vol. 18, no. 3, summer 1968, pp. 237-52).
- CROFT, J. C. *Misassignment of Teachers in Oregon*. Eugene, Ore.: Bureau of Educational Research, University of Oregon, 1967. Pp. 24.
- DAY, H. I. "Alcohol Deconditioning Research: Methodological Problems" (*Ontario Psychological Association Quarterly*, vol. 21, no. 2, 1968).
- "Effects of Amphetamine on Selective Attention" (*Perceptual and Motor Skills*, vol. 24, no. 3, part 2, June 1967, pp. 1119-25).
- "Evaluations of Subjective Complexity, Pleasingness and Interestingness for a Series of Random Polygons Varying in Complexity" (*Perception and Psychophysics*, vol. 2, no. 7, 1967, pp. 281-6).
- "The Importance of Arousal as a Motivational Factor in Learning to Read" (*Canadian Psychologist*, vol. 9, no. 2, 1968, pp. 154-61).
- "The Importance of Symmetry and Complexity in the Evaluation of Complexity, Interest and Pleasingness" (*Psychonomic Science*, vol. 10, no. 10, 1968, pp. 339-40).
- "Role of Specific Curiosity in School Achievement" (*Journal of Educational Psychology*, vol. 59, no. 1, 1968, pp. 37-43).
- "A Subjective Definition of Complexity" (*Perceptual and Motor Skills*, vol. 25, 1967, pp. 583-4).
- DOCKRELL, W. B., and BROUSSEAU, J. F. "The Correlates of Second Language Learning by Young Children" (*Alberta Journal of Educational Research*, vol. 8, Dec. 1967, pp. 295-8).
- DOCKRELL, W. B., and CONKLIN, R. C., "The Predictive Validity and Stability of WISC Scores over a Four Year Period" (*Psychology in the Schools*, vol. 4, July 1967, pp. 263-6).
- D'OYLEY, V. R. "Evaluation of English" (*OSSTF Bulletin*, vol. 48, no. 3, 1968, pp. 164-6).
- "The Ontario Tests for Admission to College and University: What Background, What Future?"; in *Guidelines: Seven Articles for School and Guidance Personnel*, pp. 16-24. Toronto: oise, 1967.
- D'OYLEY, V. R., et al. *Ontario Standard English Achievement Test 1968, Form OB*, Ontario Tests for Admission to College and University. Toronto: oise, 1968.
- D'OYLEY, V. R., GERHARDT, G. C., and EDENSON, J. *Technical Report for the Ontario Standard English Achievement Test, Form OB*. Toronto: oise, 1968.
- DRAPER, J. A. "A Proposal for Systematically Collecting and Reporting Research Relating to Adult Education in Canada" (*Continuous Learning*, vol. 6, no. 5, Sept.-Oct. 1967, pp. 211-14).
- "Educational Enquiry" (*Inter Discipline*, vol. 4, no. 4, winter 1967).
- "Library in Service of Adult Community"; in *Reading Week Souvenir: Essays on Reading and Libraries*, ed. Anand P. Srivastava, pp. 25-30. Jaipur, India: Rajasthan Library Association, 1967.
- EVANS, G. T. "Growth Factor Analysis of the Iowa Tests of Educational Development" (*Journal of Educational Measurement*, vol. 4, 1967, pp. 179-90).
- "Patterns and Development of the Mathematical Performance of Secondary School Students, Part I" (*Australian Journal of Education*, vol. 11, no. 3, Oct. 1967, pp. 235-51).
- "Patterns and Development of the Mathematical Performance of Secondary School Students, Part II" (*Australian Journal of Education*, vol. 12, no. 2, June 1968, pp. 153-66).
- FLEMING, W. G. "No Isolation for Research and Development Organizations" (*Canadian Education and Research Digest*, vol. 8, no. 2, June 1968, pp. 133-40).
- FLOWER, G. E. "Bilan de la recherche pédagogique au Canada Anglais" (*Canadian Education and Research Digest*, vol. 7, no. 3, Sept. 1967, pp. 209-22).
- "Local Government and Education" (*School Administration*, vol. 4, no. 9, Sept. 1967, pp. 39-42; also in *The Journal of Education*, vol. 17, no. 2, Dec. 1967, pp. 6-11).
- "On School Administration" (*Toronto Education Quarterly*, vol. 6, no. 4, summer 1967, pp. 29-30).

- FOWLER, W. "Developmental Science Learning for Disadvantaged Children" (*Elementary School Journal*, vol. 68, 1967, pp. 76-87).
- "The Dimensions for Environmental Control of Developmental Learning in Early Childhood" (*Psychologia Wychowawcza*, vol. 10, no. 3, 1967, pp. 265-81; no. 4, pp. 385-97).
- "Effect of Early Stimulation on the Emergence of Cognitive Processes"; in *Early Education: Report of Research and Action*, ed. D. Hess and R. M. Bear, pp. 9-36. Chicago: Aldine, 1968.
- FOWLER, W., and BURNETT, A. "Models for Learning in an Integrated Preschool" (*Elementary School Journal*, vol. 67, 1967, pp. 428-41).
- GREENFIELD, T. B. "Research on the Behaviour of Educational Leaders: Critique of a Tradition" (*Alberta Journal of Educational Research*, vol. 14, no. 1, March 1968, pp. 55-76).
- HALLER, E. J. "The Interdisciplinary Ideology in Educational Administration" (*Educational Administration Quarterly*, vol. 4, no. 2, spring 1968, pp. 61-77).
- "Pupil Influence in Teacher Socialization" (*Sociology of Education*, vol. 40, no. 4, fall 1967, pp. 316-33).
- "Some Uncongenial Comments" (*Educational Administration Quarterly*, vol. 3, no. 3, autumn 1967, pp. 266-74).
- HALLS, W. D. "Les Effects de l'urbanisation sur l'éducation française" (*International Review of Education*, vol. 13, no. 4, 1967, pp. 461-9).
- "France Retains Lycées" (*Times Educational Supplement*, Oct. 27, 1967).
- HARVEY, E. "Decision Makers in Conflict" (*The Business Quarterly*, vol. 32, no. 3, autumn 1967).
- "Social Change and the Jazz Musician" (*Social Forces*, vol. 46, no. 1, Sept. 1967, pp. 34-42).
- "Technology and the Structure of Organizations" (*American Sociological Review*, vol. 33, no. 2, April 1968, pp. 247-58).
- HERBERT, J. "Lesson Analysis and the Teacher's Craft" (*The High School Journal*, vol. 51, no. 1, Oct. 1967, pp. 46-52; *Education Digest*, vol. 33, no. 5, Jan. 1968, pp. 49-52).
- HICKCOX, S. "Choosing Top Administrators" (*Canadian School Journal*, vol. 45, no. 7, Nov.-Dec. 1967, pp. 12-13).
- HORN, DOROTHY M., et al. *Ontario Mathematics Achievement Test 1968, Form OB*. Ontario Tests for Admission to College and University. Toronto: OISE, 1968.
- HORN, DOROTHY M., and FUTCHER, W. G. *Technical Report for the Ontario Mathematics Achievement Test, Form OB*. Toronto: OISE, 1968.
- HOUSE, J. H., et al. "The Organizational Component in Education" (*American Educational Research Journal*, vol. 37, no. 4, Oct. 1967, pp. 399-416).
- KATZ, J. S. Reviews, *Harvard Educational Review*, vol. 38, no. 1, winter 1968, pp. 205-8; *Teachers College Record*, vol. 69, no. 8, May 1968, pp. 812-16.
- KATZ, M. B. "The Emergence of Bureaucracy in Urban Education: The Boston Case, 1850-1885" (*History of Education Quarterly*, vol. 8, no. 2, summer 1968; no. 3, fall 1968).
- "National Service as Popular Education" (*National Service*, Russell Sage Foundation, 1968).
- "In Defense of OISE" (*This Magazine is about Schools*, vol. 1, no. 4, autumn 1967).
- KIDD, J. R. "Continuous Learning" (*The ATA Magazine*, vol. 48, no. 1, Sept.-Oct. 1967, pp. 24-7).
- *Functional Literacy and International Development: A Study of Canadian Capability to Assist with the World Campaign to Eradicate Illiteracy*. Toronto: Department of Adult Education, OISE, 1967. Pp. 121 (mimeo).
- *Functional Literacy and International Development: Summary of a Study of Canadian Capability to Assist with the World Campaign to Eradicate Illiteracy*. Ottawa: Canadian National Commission for UNESCO, 1968. Pp. 59.
- "The Implications of Education Permanente for Teachers" (*Education Panorama*, vol. 10, no. 2, 1968, pp. 2-10).
- "Implications of Education Permanente for University Adult Education"; in *Occasional Paper 11*, ed. A. A. Liveright, pp. 10-21. International Congress of University Adult Education, 1967.
- "Man is not Dead" (*Proceedings of the Annual Meeting, Canadian College of Teachers*, vol. 10, 1967, pp. 15-26).
- "Trends and Paradoxes" (*Canadian Personnel and Industrial Relations Journal*, vol. 15, no. 3, May 1968, pp. 27-30).
- LAXER, R. M., and QUARTER, J. J. "Follow-up Study of Small-Group Counselling of Under-achievers in Secondary Schools" (*Ontario Journal of Educational Research*, vol. 10, no. 2, winter 1967-68, p. 139).
- LAXER, R. M., QUARTER, J. J., ISNOR, CATHERINE, and KENNEDY, D. R. "Counselling Small Groups of Behavior Problem Students in Junior High School" (*Journal of Counseling Psychology*, vol. 14, no. 5, 1967, pp. 454-7).
- LAXER, R. M., QUARTER, J. J., and KENNEDY, D. R. "Effect of Order and Form in the Q-Sort" (*Psychological Reports*, vol. 20, 1967, pp. 893-4).
- MCLEAN, L. D. "Computer Technology in the Education of Migrant Children and Other Disadvantaged Groups" (*AEDS Monitor*, vol. 6, no. 6, Jan. 1968, pp. 8-14).

- "Evaluating Education Technology" (*Convergence*, vol. 1, no. 2, June 1968, pp. 62-8).
- MICHELSON, W. "A Parsonian Scheme for the Study of Man and Environment or What Human Ecology Left Behind in the Dust" (*Sociological Inquiry*, vol. 38, no. 2, spring 1968, pp. 37-48).
- "Potential Candidates for the Designers' Paradise: A Social Analysis from a Nationwide Survey" (*Social Forces*, vol. 46, no. 2, Dec. 1967, pp. 190-6).
- "Social Insights to Guide the Design of Housing for Low Income Families" (*Ekistics*, vol. 25, 1968, pp. 252-5).
- "Urban Sociology as an Aid to Urban Physical Environment" (*Journal of American Institute of Planners*, vol. 34, March 1968, pp. 105-8).
- "Value Orientations and Urban Physical Form: An Empirical Assessment"; in *Readings in Urban Sociology*, ed. Paul Meadows and Ephraim Miziuchi. Reading, Mass.: Addison-Wesley, 1968.
- NARROL, H. G. "Are Conditioners Really Human?" (*Ontario Psychological Association Quarterly*, vol. 20, 1967, pp. 71-4).
- NISHISATO, S., BINDRA, D., and DONDERI, D. C. "Decision Latencies of 'Same' and 'Different' Judgments" (*Perception and Psychophysics*, vol. 3, no. 2(B), Feb. 1968, pp. 121-30).
- NISHISATO, S., and WISE, J. S. "Relative Probability, Interstimulus Interval, and Speed of the Same-Different Judgment" (*Psychonomic Science*, vol. 7, no. 2, 1967, pp. 59-60).
- OLSON, D. "The Impasse amongst Learning Theory, Cognitive Theory, and Educational Theory" (*Canadian Psychologist*, vol. 8a, no. 4, 1967, pp. 348-53).
- PRUETER, K. F. "Thoughts on Educational Needs Related to Physical Environment" (*Architecture Canada*, vol. 45, no. 3, March 1968, pp. 59-60).
- PRUETER, K. F., GOODLAD, J., and WEES, W. R. "Report from the Think Shop" (*Monday Morning*, vol. 2, no. 8, April 1968, pp. 13-18).
- RAGSDALE, R. G. "Computers in the Laboratory: Education" in *Decus Proceedings*, ed. A. J. Cosssette, pp. 137-8. Maynard, Mass.: Digital Equipment Computer User's Society, 1967.
- RIDEOUT, E. B. "Practices and Trends in Provincial Financing of Schools"; in *Alberta Seminar on Educational Finance*, pp. 9-27. Edmonton: Alberta Teachers' Federation, 1967.
- "School Finance and Grants to School Boards"; in *Report of Proceedings of the Special Tax Conference*, pp. 107-11. Toronto: Canadian Tax Foundation and Bureau of Municipal Research, 1968.
- "The Tax Structure and Grants for Elementary and Secondary School Education in Ontario"; in *Documents Relating to Studies of the Provincial Committee*. Toronto: The Provincial Committee on Aims and Objectives of Education in the Schools of Ontario, 1968. Pp. 46.
- ROBBINS, M. P. "A Study of the Validity of Delacato's Theory of Neurological Organization"; in *Remedial Reading: An Anthology of Sources*, eds. L. M. Schell and P. C. Burns, pp. 291-300. Boston: Allyn and Bacon, 1968. Also in *Skolepsykologi*, vol. 4, no. 5, July 1967, pp. 285-97).
- "Test of the Doman-Delacato Rationale with Retarded Readers" (*Journal of the American Medical Association*, vol. 202, no. 5, Oct. 1967, pp. 389-93).
- ROBBINS, M. P., and GLASS, G. V. "A Critique of Experiments on the Role of Neurological Organization in Reading Performance" (*Reading Research Quarterly*, vol. 3, no. 1, fall 1967, pp. 5-51).
- *The Doman-Delacato Rationale: A Critical Analysis*. Research Papers No. 2. Boulder, Colorado: Laboratory of Educational Research, University of Colorado, 1967. Pp. 43.
- SIMMONS, J. "Changing Residence in the City: A Review of Intra-urban Mobility" (*Geographical Review*, vol. 58, no. 4, Oct. 1968, pp. 622-51).
- "Urban Geography in Canada" (*Canadian Geographer*, vol. 11, no. 4, 1967, pp. 341-56).
- "Voting Behaviour and Socio-economic Characteristics: The Middlesex East Federal Election, 1965" (*Canadian Journal of Economics and Political Science*, vol. 33, Aug. 1967, pp. 389-400).
- SULLIVAN, E. V. *Piaget and the School Curriculum: A Critical Appraisal*. Bulletin No. 2. Toronto: OISE, 1967. Pp. 38.
- TOUGH, A. "Adult Education as a Field of Study in Canada" (*Continuous Learning*, vol. 7, no. 1, Jan.-Feb. 1968, pp. 4-14).
- *Comparative Studies in Adult Education: A Seminar Held at The Ontario Institute for Studies in Education*. Toronto: Department of Adult Education, OISE, 1938. Pp. 47 (mimeo.).
- *The Continuing Education of Women: Report of an Informal Discussion*. Toronto: Department of Adult Education, OISE, 1968 (mimeo.).
- *Learning without a Teacher: A Study of Tasks and Assistance during Adult Self-Teaching Projects*. Educational Research Series No. 3. Toronto: OISE, 1967. Pp. 92.
- "Research and Training" (*Convergence*, vol. 1, no. 1, March 1968, pp. 76-9).
- TRAUB, R. E. "A Note on the Reliability of Residual Change Scores" (*Journal of Educational Measurement*, vol. 4, 1967, pp. 253-6).
- TRAUB, R. E., ROBERTS, D. M., et al. *Ontario Scholastic Aptitude Test, 1967-68 Edition*, Ontario Tests for Admission to College and University. Toronto: OISE, 1968.

- TRAUB, R. E., and VAN LOAN, M. *Technical Report for the Ontario Scholastic Aptitude Test, Form OB*. Toronto: OISE, 1968.
- WAHLSTROM, M. W., and BOERSMA, F. J. "The Influence of Test-Wiseness upon Achievement" (*Educational and Psychological Measurement*, vol. 28, no. 2, summer 1968, pp. 413-20).
- WAHLSTROM, M. W., and HUNKA, S. "A Fortran Program for Canonical Correlations" (*British Journal of Mathematical and Statistical Psychology*, vol. 20, no. 1, 1967, pp. 125-6).
- WATSON, CIGELY. Review, *Comparative Education Review*, vol. 12, no. 2, June 1968, pp. 205-7.
- WATSON, CIGELY, and BUTORAC, J. *Qualified Manpower in Ontario: Determination and Projection of Basic Stocks*, vol. 1, Toronto: OISE, 1968. Pp. xi, 384.
- WATSON, CIGELY, QUAZI, S., and BURNHAM, SHARON. *Ontario Secondary School Enrolment Projections to 1981-82*. Projection Series No. 2. Toronto: OISE, 1967. Pp. x, 117.

SCHOOL OF LIBRARY SCIENCE

- BALL, K. L. "Study of Canadian Libraries: Their Resources, Performance and Development" (*Canadian Library*, vol. 24, no. 5, March 1968, pp. 515-16).
- BISHOP, O. B. "The Chairman's Corner" (*Agora*, vol. 1, no. 1, Jan. 1968, p. i; vol. 1, no. 2, April 1968, p. 1).
- "The Winnipeg Memorandum and After" (*Institute of Professional Librarians of Ontario Newsletter*, vol. 9, no. 4, 1968, pp. 72-8).
- (ed.) *Agora*, the Bulletin of the Research and Special Libraries Sections of the Canadian Library Association.
- Review, *Canadian Hospital*, vol. 45, no. 4, April 1968, p. 60.
- CARIOU, M. O. "A Computerized Method of Preparing Catalogue Cards using a Simplified Form of Data Input"; in *American Documentation Institute, Proceedings of the Annual Meeting, Oct. 22-27, 1967* pp. 186-90. Washington, D.C., 1967.
- COCKSHUTT, M. E. Review, *Ontario Library Review*, vol. 52, no. 1, March 1968, p. 33.
- JARVI, E. T. *Guide to Basic Reference Books*. Toronto: School of Library Science, 1967. Pp. iv, 84.
- Reviews, *The Booklist and Subscription Books Bulletin*, vol. 64, no. 8, Dec. 15, 1967, pp. 457-62; no. 17, May 1, 1968, pp. 1005-8; no. 19, June 1, 1968, pp. 1105-7.
- JARVI, E. T., PACKER, K., et al. "The IFLA-FIAB 33rd Council" (*Canadian Library*, vol. 24, no. 3, Nov. 1967, pp. 218-22).
- LAIRD, M. J. "Seminar in Supervision and Communication" (*Institute of Professional Librarians of Ontario Newsletter*, vol. 9, no. 1, July 1967, pp. 3-6).
- LAND, R. B. "Brief Regarding Provincial Fellowship for Library Science Students." Prepared for the Ontario Committee of Deans and Directors of Library Schools. Toronto, 1968. Pp. 4.
- "Graduate School Responsibility; Emphasis on Theory" (*Library Journal*, vol. 93, no. 9, May 1, 1968, p. 1870).
- "Placement and Salary of 1967 Graduates" (*Felicitier*, vol. 13, no. 8, April 1968, pp. 5-14).
- MARSHALL, J. M. "Chapter Status: Solution to Our Problems?"; in *Canadian Library Association, Proceedings of the Twenty-Second Annual Conference, June 17-23, 1967*, pp. 6-16. Ottawa, 1967.
- "Technician Programs in Canada"; in *Library Technicians: A New Kind of Needed Library Worker; a Report of a Conference on Library Technology ... held in Chicago, May 26-27, 1967*, pp. 19-24. Washington, D.C.: Communication Service Corporation, 1967.
- "The Training of Library Technicians: A Brief Submitted to the Training Subcommittee of the Study of Scientific and Technical Information in Canada, Science Secretariat, Privy Council Office, Ottawa." Feb. 1, 1968. Pp. 23.
- MARSHALL, J. M. (with WILSON, M. C., and MUNRO, J. E.) *Summary of a Survey of Library Technician Training Courses in Alberta, British Columbia, Manitoba and Ontario, 1967-1968*. CLA Occasional Paper No. 71. Ottawa: Canadian Library Association, 1968. Pp. 4.
- MURRAY, F. B. "Agricultural Settlement on the Canadian Shield: Ottawa River to Georgian Bay"; in *Profiles of a Province*, pp. 178-86. Toronto: Ontario Historical Society, 1967.
- (ed.) *How to Use the Library*. (Can. ed.) Toronto: Coles Publishing Co., 1968. Pp. 100.
- PACKER, K. H. "Professional Reference Service for Ontario Teachers" (*O.S.S.T.F. Bulletin*, vol. 47, no. 4, Oct. 1967, p. 216-17).
- SILVERTHORN, M. E. (ed.) *Canadian Books 1966*. Ottawa: Canadian Library Association, 1967. Pp. 23.

FACULTY OF FORESTRY

- ARMSON, K. A. "Forest Fertilization" (*Proceedings of the Canadian Society of Horticultural Science*, vol. 6, 1967, pp. 1-6).
- "The Ontario Professional Foresters Association" (*Forestry Chronicle*, vol. 44, no. 2, April 1968, pp. 53-4).
- Reviews. *Forestry Chronicle*, vol. 44, no. 2, April 1968, p. 74.
- BALATINECZ, J. J. "The Impact of Particle Board on Wood Utilization in Canada" (*Ninth Commonwealth Forestry Conference*, New Delhi, India, Jan. 1968, pp. 1-7).
- BALATINECZ, J. J. (with FARRAR, J. L.) "Tracheid Development and Wood Quality in Larch Seedlings under Controlled Environment" (*Proceedings of the 8th Lake States Forest Tree Improvement Conference*, September 12-13, 1967, pp. 28-36).
- BALATINECZ, J. J. (with KENNEDY, R. W.) "Maturation of Ray Parenchyma Cells in Pine" (*Forest Products Journal*, vol. 17, no. 10, Oct. 1967, pp. 28-36).
- DAY, R. J. "A Plea for Standard Tree Name Abbreviations" (*Forestry Chronicle*, vol. 43, no. 2, June 1967, pp. 121-33).
- "Whitebark Pine in the Rocky Mountains of Alberta" (*ibid.*, vol. 43, no. 3, Sept. 1967, pp. 278-83).
- FARRAR, J. L. (with NICHOLSON, J. J. M.) "Response of Ten Provenances of White Spruce Seedlings to Variable Concentration of Calcium in the Nutrient Medium" (*Proceedings of the 14th Northeastern Forest Tree Improvement Conference*, 1967, pp. 39-42).
- JORGENSEN, E. "Forests Gain from Urban Studies" (*University of Toronto Graduate*, vol. 1, no. 4, June 1968, pp. 59-64).
- Urban Forestry: Some Problems and Proposals*. Toronto: Faculty of Forestry, Sept. 1967. Pp. 10.
- JORGENSEN, E. (with HODGES, C. S.) "Fomes annosus Root Rot"; in *Important Forest Insects and Diseases of Mutual Concern to Canada, the United States and Mexico*, pp. 49-52. Canada Department of Forestry and Rural Development, 1967.
- RICE, P. F. "Winds of Change and the New Forester" (*The Annual Ring*, 1968, pp. 17-19).

FACULTY OF MUSIC

- BECKWITH, J. *Circle, with Tangents* (for harpsichord and 13 solo strings; full score). Don Mills, Ont.: BMI Canada Ltd., 1968.
- Three Blessings* (for a cappella chorus). Don Mills, Ont.: BMI Canada Ltd., 1968.
- CIAMAGA, G. S. "Some Thoughts on the Teaching of Electronic Music" (*Inter-American Institute for Musical Research, Yearbook*, vol. 3, 1967, pp. 69-74).
- CIAMAGA, G. S. (with LE CAINE, HUGH) "A Preliminary Report on the Serial Sound Structure Generator" (*Perspectives of New Music*, vol. 6, no. 1, fall-winter 1967, pp. 114-18).
- CIAMAGA, G. S. (with GABURA, J.) "Computer Control of Sound Apparatus for Electronic Music" (*Journal of the Audio Engineering Society*, vol. 16, no. 1, Jan. 1968, pp. 49-51).
- FALCK, R. "Zwei Lieder Phillips des Kanzlers und ihre Vorbilder. Neue Aspekte musikalischer Entlehnung in der mittelalterlichen Monodie" (*Archiv für Musikwissenschaft*, vol. 24, Heft 2, pp. 81-98).
- KENINS, T. *Diversities* (12 Etudes in contemporary styles). Toronto: Leeds Music (Canada), 1968.
- MANIATES, M. R. "The D Minor Symphony of Robert Schumann"; in *Festschrift Walter Viora*, pp. 441-7. Kassel: Bärenreiter Verlag, 1967.
- WUENSCH, G. J. *Vexilla Regis Prodeunt*, Cantata for Soloists, Mixed Chorus and Organ, Op. 36 (no. 1 in Wilshire Presbyterian Choral Series). Los Angeles: Western International Music, 1968. Pp. 36.
- Glimpses*, Twelve Introductions to Contemporary Idioms for Piano, Op. 37 (with text). Toronto: Leads Music (Canada), 1968. Pp. 28.

FACULTY OF DENTISTRY

- ANDERSON, D. L. "Oral Cancer Incidence in Central and Western Canada" (*Journal of the Canadian Dental Association*, vol. 34, no. 4, April 1968, pp. 180-9).
- DAVEY, K. W. "Effect of Premature Loss of Primary Molars on the Anteroposterior Position

- of Maxillary First Permanent Molars and Other Maxillary Teeth" (*Journal of Dentistry for Children*, vol. 34, no. 5, Sept. 1967, pp. 383-94).
- GRAINGER, R. M. "Complexity of Facial Growth Analyses (Problems in Analyses of Dento-facial Anomalies)" (*Journal of Dental Research*, vol. 46, no. 6, Nov.-Dec. 1967, p. 1210).
- GRAINGER, R. M., *et al.* "Dental Survey in the Brong Ahafo Region of Ghana" (*Archives of Oral Biology*, vol. 12, no. 12, Dec. 1967, pp. 1337-41).
- HIBBERD, J. H. "Crown and Bridgework" (*Australian Dental Journal*, vol. 13, no. 1, Feb. 1968, pp. 45-56).
- HUNTER, H. A. "Stomatitis" (*Oral Health*, vol. 57, no. 6, June 1967, pp. 445-9, 453, 459, 463, 466; *Journal of the Dental Association of South Africa*, vol. 22, no. 9, Sept. 1967, pp. 284-7).
- "Three-Year Experience with an Oral Cytology Service for the Ontario Dental Profession" (*Laval Médical*, vol. 39, no. 1, Jan. 1968, pp. 8-10).
- KAMIENSKI, M. A., and GRAINGER, R. M. "An Evaluation of the Dental Assistant's Course of the Toronto Academy of Dentistry. Part 2" (*Journal of the Ontario Dental Association*, vol. 44, no. 6, June 1967, pp. 12-15).
- LACKIE, F. C. "Muco-periosteal Flaps - Suturing Problems" (*Journal of the Ontario Dental Association*, vol. 45, no. 3, March 1968, pp. 83-7).
- LEWIS, D. W., and GRAINGER, R. M. "Sex-Linked Inheritance of Tooth Size: A Family Study" (*Archives of Oral Biology*, vol. 12, no. 4, April 1967, pp. 539-44).
- LISTGARTEN, M. A. "A Light and Electron Microscopic Study of Coronal Cementogenesis" (*Archives of Oral Biology*, vol. 13, no. 1, Jan. 1968, pp. 93-114).
- "A Mineralized Cuticular Structure with Connective Tissue Characteristics on the Crowns of Human Unerupted Teeth in Amelogenesis Imperfecta: A Light and Electron Microscopic Study" (*Archives of Oral Biology*, vol. 12, no. 7, July 1967, pp. 877-89).
- LISTGARTEN, M. A., and LEWIS, D. W. "The Distribution of Spirochetes in the Lesion of Acute Necrotizing Ulcerative Gingivitis: An Electron Microscopic and Statistical Survey" (*Journal of Periodontology*, vol. 38, no. 5, Sept.-Oct. 1967, pp. 379-86).
- MORGAN, G. A., *et al.* "Differential Radiological Interpretation: The Hypercementosis of Paget's Disease; Parallax and the Cystic Maxillary Cuspid; the So-called Simple Bone Cyst" (*Journal of the Ontario Dental Association*, vol. 44, no. 8, Aug. 1967, pp. 20-1; no. 11, Nov. 1967, pp. 13-14; vol. 45, no. 2, Feb. 1968, pp. 47-9).
- "Fibrous Adamantinoma of the Mandible (Ameloblastoma)" (*Canadian Medical Association Journal*, vol. 98, no. 25, June 22 and 29, 1968, pp. 1193-5).
- "Neurilemmoma - Neurofibroma" (*Oral Surgery, Oral Medicine and Oral Pathology*, vol. 25, no. 2, Feb. 1968, pp. 182-9).
- "Periapical Fibroosteocementoma" (*Journal of the Canadian Dental Association*, vol. 34, no. 3, March 1968, pp. 123-7).
- POSEN, A. L. "The Monobloc" (*Angle Orthodontist*, vol. 38, no. 2, April 1968, pp. 121-8).
- POYTON, H. G. "Methodical Approach to Radiographic Interpretation" (*Dental Radiography and Photography*, vol. 40, no. 4, 1967, pp. 71-7).
- POYTON, H. G., and DAVEY, K. W. "Thalassemia" (*Oral Surgery, Oral Medicine, and Oral Pathology*, vol. 25, no. 4, April 1968, pp. 564-76).
- REYNOLDS, C. "Drugs in Dentistry" (monthly in *Oral Health*).
- SMYLSKI, P. T., and HURD, G. K. "Osteomyelitis of the Mandible in an Alcoholic Patient: Case Report" (*Journal of the Canadian Dental Association*, vol. 34, no. 5, May 1968, pp. 237-43).
- STONEMAN, D. W. "Dental Radiology" (monthly in *Oral Health*).
- "Swelling of the Jaws; a Radiologic Consideration" (*Oral Health*, vol. 57, no. 8, Aug. 1967, pp. 553-75).
- STOREY, A. T. "Sensory Functions of the Temporomandibular Joint" (*Journal of the Canadian Dental Association*, vol. 34, no. 6, June 1968, pp. 294-300).
- TORNECK, C. D. "Reaction of Rat Connective Tissue to Polyethylene Tube Implants. Part II" (*Oral Surgery, Oral Medicine and Oral Pathology*, vol. 24, no. 5, Nov. 1967, pp. 674-83).
- ZARB, G. A. "Maxillary Resection and its Prosthetic Replacement" (*Journal of the Canadian Dental Association*, vol. 33, no. 10, Oct. 1967, pp. 537-47).

FACULTY OF PHARMACY

- BAXTER, R. M. "Developments in Pharmaceutical Education" (*Canadian Pharmaceutical Journal*, vol. 101, no. 3, March 1968, pp. 96-100).
- "Pharmaceutical Education for Professional Practice - Changing Objectives" (*The Hospital Pharmacist*, vol. 21, no. 1, Jan.-Feb. 1968, pp. 13-17).
- "Where the Profession Is Going" (*Bulletin of the Ontario College of Pharmacy*, vol. 17, no. 2, March 1968, pp. 21-6).

- BLANCHARD, J. and NAIRN, J. G. "The Binding of Cholate and Glycocholate Anions by Anion-Exchange Resins" (*Journal of Physical Chemistry*, vol. 72, April 1968, pp. 1204-8).
- CARTER, C. W., NAIRN, J. G., and WALKER, G. C. "The Stability of 2-Hydroxyiminomethyl-1-methylpyridium Methanesulphonate (P₂S) and Atropine Sulphate in Aqueous Solution" (*Canadian Journal of Pharmaceutical Sciences*, vol. 3, no. 1, 1968, pp. 8-10).
- DUNCAN, G. R. Review, *Bulletin of the Ontario College of Pharmacy*, vol. 17, no. 2, March 1968, p. 34.
- FULLER, H. J. "25th Annual Survey of Retail Operations" (*Canadian Pharmaceutical Journal*, vol. 100, no. 10, Oct. 1967, pp. i-xxxvi).
- HART, F. E., and PATERSON, G. R. "The Effect of Defloration and of Maleic Acid Hydrazide on the Convallatoxin Content of *Ornithogalum umbellatum*" (*Canadian Journal of Pharmaceutical Sciences*, vol. 3, no. 1, 1968, pp. 15-18).
- HUGHES, F. N. "The Practice of Pharmacy - The Eleventh Hour" (*Bulletin of the Ontario College of Pharmacy*, vol. 16, no. 4, Sept. 1967, pp. 65-72).
- "A Pharmaceutical Educator Looks at Home Medication" (*Bulletin of the Ontario College of Pharmacy*, vol. 17, no. 3, May 1968, pp. 48-52).
- HUGHES, F. N., and ROTENBERG, G. N. *Compendium of Pharmaceutical and Specialties (Canada) 1968*, 4th ed. Toronto: The Canadian Pharmaceutical Association, Inc., 1968. Pp. 1015.
- "New Pharmaceuticals"; section in *Canadian Pharmaceutical Journal* and *Canadian Medical Association Journal*.
- KANDEL, S. I., WONG, S. C., KANDEL, M., and GORNALL, A. G. "Irreversible Inactivation of Bovine Carbonic Anhydrase B by Bromoacetazolamide" (*Journal of Biological Chemistry*, vol. 243, no. 9, May 10, 1968, pp. 2437-9).
- NAIRN, J. G. Reviews, *American Journal of Pharmaceutical Education*, vol. 31, Aug. 1967, p. 421; *Canadian Pharmaceutical Journal*, vol. 100, no. 7, July 1967, p. 207; vol. 101, no. 1, Jan. 1968, p. 43.
- PATERSON, G. R. Reviews, *American Journal of Pharmaceutical Education*, vol. 31, no. 4, Nov. 1967, p. 572; *Canadian Pharmaceutical Journal*, vol. 100, no. 12, Dec. 1967, p. 534; vol. 101, no. 1, Jan. 1968, p. 43; no. 3, March 1968, p. 118.
- ROTENBERG, G. N. "Pill Counting - Fact or Fallacy" (*Bulletin of the Ontario College of Pharmacy*, vol. 16, no. 4, Sept. 1967, pp. 61-3).
- STEWART, D. J. "Idiosyncracies Associated with Drug Therapy"; bimonthly section in *Bulletin of the Ontario College of Pharmacy*.
- STIEB, E. W. "At the Sign of the Golden Mortar" (*Bulletin of the Ontario College of Pharmacy*, vol. 17, no. 2, March 1968, pp. 33-4).
- (anonymously) "Canadian Academy of the History of Pharmacy" (*Canadian Pharmaceutical Journal*, vol. 100, no. 12, Dec. 1967, p. 514).
- "Facts on Artifacts"; regular column in *Pharmacy in History*.
- "Minutes of the Annual Meeting, 1967 (of the American Institute of the History of Pharmacy)" (*Pharmacy in History*, vol. 9, no. 4, 1967, pp. 119-21).
- "The Past Is Prologue" (*Bulletin of the Ontario College of Pharmacy*, vol. 16, no. 5, Nov. 1967, pp. 81-2).
- "Pharmacy in a Castle" (*Pharmacy in History*, vol. 10, no. 2, 1968, pp. 51-5).
- "Preserving a Link with the Past" (*Bulletin of the Ontario College of Pharmacy*, vol. 17, no. 3, May 1968, pp. 55-6).
- "Report of the Secretary, 1967 (of the American Institute of the History of Pharmacy)" (*Pharmacy in History*, vol. 9, no. 4, 1967, pp. 125, 130).
- Reviews, *Pharmacy in History*, vol. 10, no. 1, 1968, p. 17; no. 2, 1968, pp. 62-3.
- TEARE, F. W. Reviews, *Bulletin of the Ontario College of Pharmacy*, vol. 16, no. 4, Sept. 1967, p. 64; *Canadian Pharmaceutical Journal*, vol. 100, no. 7, July 1967, p. 297; no. 12, Dec. 1967, p. 534.

FACULTY OF ARCHITECTURE, URBAN AND REGIONAL PLANNING AND LANDSCAPE ARCHITECTURE

- BLUMENFELD, A. *The Modern Metropolis: Its Origins, Growth, Characteristics and Planning*. Selected Essays, ed. P. D. Spreiregen. Cambridge: MIT Press, 1967. Pp. 377.
- DAKIN, A. J. *A Bibliography for Regional Development: A Classified List of Limited References in Ontario*. Department of Economics and Development, Government of Ontario, 1967. Pp. 130.
- "Comments"; supplementary report in *Survey of the Profession*, pp. 146-7. Royal Architectural Institute of Canada, 1966.
- "Inhumanities of Urban Planning" (*University of Toronto Quarterly*, vol. 35, no. 4, July 1966, pp. 321-56).

- "Our Megalopolitan Future" (*Journal of the Metropolitan Toronto Board of Trade*, vol. 56, no. 12, Dec. 1966, pp. 16-18).
- "Planning for Toronto" (*Metropolitan Toronto Board of Trade Journal*, vol. 57, no. 8, pp. 2-5).
- HODGE, G. "Branch Line Abandonment: Death Knell for Prairie Towns?" (*Canadian Journal for Agricultural Economics*, vol. 16, no. 1, 1968, pp. 54-70).
- "Developing Regional Statistics for Policy Purposes"; in *Papers on Regional Statistical Studies*, ed. Sylvia Ostry and T. K. Rymes, pp. 53-74. Toronto: University of Toronto Press, 1967.
- *Development Capability of Rural and Urban Areas in Prince Edward Island. A Report to the Province of Prince Edward Island*. Toronto, Jan. 1967. Pp. 41.
- "The Emerging Bounds of Urban Development" (*Community Planning Review*, vol. 17, spring 1967, pp. 4-9).
- *The Identification of "Growth Poles" in Eastern Ontario*. A Report to the Ontario Department of Economics and Development. Toronto, Aug. 1966. Pp. 48.
- "The Paradoxes of Urbanization and Regional Development"; in *Urban Development: Its Implications for Social Welfare*, Proceedings of the 13th International Conference of Social Works, 1966, pp. 246-56. New York: Columbia University Press, 1967.
- "The Rise and Demise of the U.N. Technical Assistance Administration" (*Canadian Public Administration*, vol. 10, March 1967, pp. 1-24).
- HOWARTH, T. "A Recent Development: Architectural History in Canada"; in *Scholarship in Canada, 1967*, ed. R. H. Hubbard, pp. 51-8. Toronto: University of Toronto Press, 1968.
- PARIS, J. D., and HODGE, G. *The System of Central Places in Prince Edward Island*. A Report to the Province of Prince Edward Island. Toronto, Feb. 1967. Pp. 20.

SCHOOL OF HYGIENE

- ANDERSON, T. W., BROWN, J. R., HALL, J. W., and SHEPHARD, R. J. "The Limitations of Linear Regressions for the Prediction of Vital Capacity and Forced Expiratory Volume" (*Respiration*, vol. 25, no. 2, 1968, pp. 140-58).
- ANDERSON, N., and DOANE, F. W. "Epoxy Embedding of Thin-Layer Material in Commercially Available Vinyl Cups for Light and Electron Microscopy" (*Stain Technology*, vol. 42, no. 4, July 1967, pp. 169-73).
- ANDERSON, T. W., and MACKAY, J. S. "A Critical Reappraisal of the Epidemiology of Cardiovascular Disease" (*Lancet*, vol. 1, no. 7552, May 25, 1968, pp. 1137-41).
- ANDERSON, T. W., and SHEPHARD, R. J. "Physical Training and Exercise Diffusing Capacity" (*Arbeitsphysiologie*, vol. 25, 1968, pp. 195-209).
- BEATON, G. H. "Nutrition and Public Health in Canada" (*7th International Congress on Nutrition Proceedings*, vol. 4, 1966, pp. 49-53).
- "Vitamin and Food Toxicity" (*Canadian Home Economics Journal*, Dec. 1967, pp. 91-116).
- BEECKMANS, J. M., and SHEPHARD, R. J. "A Theoretical Basis for the Partitioning of Maximal Cardio-respiratory Performance" (*Canadian Journal of Physiology and Pharmacology*, vol. 45, no. 1, Jan. 1967, pp. 185-90).
- BEST, E. W. R., and MCKENZIE, A. C. "Report on a Study of the Activities of Local Health Service Personnel in Two Health Units in One Province of Canada" (*Canadian Journal of Public Health*, vol. 59, part I, no. 4, April 1968, pp. 139-48; part II, no. 5, May 1968, pp. 177-84).
- BROWN, J. R. "Organo-Chlorine Pesticide Residues in Human Depot Fat" (*Canadian Medical Association Journal*, vol. 97, no. 8, Aug. 19, 1967, pp. 367-73).
- BROWN, J. R., HUGHES, H., and VIRIYANONDHA, S. "Distribution, Storage and Metabolism of 1,1-Bis(4-chlorophenyl)-2,2,2-trichloroethanol (Kenthane)" (*Federation Proceedings*, vol. 27, no. 2, March-April 1968, p. 238).
- BROWN, J. R., JOSE, F. R., and KULKARNI, M. V. "Studies on the Toxicity and Metabolism of Mercury and its Compounds" (*Medical Services Journal, Canada*, vol. 23, no. 9, Oct. 1967, pp. 1089-110).
- BROWN, J. R., and KULKARNI, M. V. "A Review of the Toxicity and Metabolism of Mercury and its Compounds" (*Medical Services Journal, Canada*, vol. 23, no. 5, May 1967, pp. 786-808).
- BROWN, J. R., and MCLEAN, D. M. "Water-borne Diseases: An Historical Review" (*Medical Services Journal, Canada*, vol. 23, no. 8, Sept. 1967, pp. 1011-26).
- BROWN, J. R. and SHEPHARD, R. J. "Some Measurements of Fitness in Older Female Employees of a Toronto Department Store" (*Canadian Medical Association Journal*, vol. 97, no. 20, Nov. 11, 1967, pp. 1208-13).
- BROWN, M. H. "The Health Services Troika - Where is it Going?" (*Canadian Journal of Public Health*, vol. 58, no. 9, Sept. 1967, pp. 385-90).

- CAHOON, Margaret C. *Health Science Book 4, Book 5, Book 6*. Toronto: Doubleday, 1968. (Also Teachers' Editions.)
- CAMPBELL, J. B., and COLTER, J. S. "Isolation of a Series of Mengo Virus Variants Differing in Sensitivity to Polyanions" (*Canadian Journal of Microbiology*, vol. 13, no. 6, June 1967, pp. 651-7).
- "Sensitivity to, and Production of, Interferon by Three Variants of Mengo Virus" (*ibid.*, no. 8, Aug. 1967, pp. 931-7).
- "Studies of Three Variants of Mengo Encephalomyelitis Virus. IV. Affinities for Mouse Tissues *in vitro* and *in vivo*" (*Virology*, vol. 32, no. 1, May 1967, pp. 69-73).
- CAMPBELL, J. B., MAES, R. F., WIKTOR, T. J., and KOPROWSKI, H. "The Inhibition of Rabies Virus by Arabinosyl Cytosine. Studies on the Mechanism and Specificity of Action" (*Virology*, vol. 34, no. 4, April 1968, pp. 701-8).
- CHERNESKY, M. A. "Transmission of California Encephalitis Virus by Mosquitoes" (*Canadian Journal of Microbiology*, vol. 14, no. 1, Jan. 1968, pp. 19-23).
- DESSER, S. S., FALLIS, A. M., and GARNHAM, P. C. C. "Relapses in Ducks Chronically Infected with *Leucocytozoon simondi* and *Parahaemoproteus nettionis*" (*Canadian Journal of Zoology*, vol. 46, no. 2, 1968, pp. 281-5).
- DIAS, H. F., and DOANE, F. W. "Evidence for Lack of Relationship between Canadian Cucumber Necrosis and Tobacco Necrosis Viruses" (*Canadian Journal of Botany*, vol. 46, no. 1, Jan. 1968, pp. 47-50).
- DOANE, F. W., ANDERSON, N., CHATYANONDA, K., BANNATYNE, R. M., MCLEAN, D. M. and RHODES, A. J. "Rapid Laboratory Diagnosis of Paramyxovirus Infections by Electron Microscopy" (*Lancet*, vol. 2, no. 7519, Oct. 7, 1967, pp. 751-3).
- DOANE, F. W., ANDERSON, N., and RHODES, A. J. "The Importance of Electron Microscopy in Diagnostic Virology" (*Canadian Journal of Public Health*, vol. 59, no. 1, Jan. 1968, p. 34).
- FALLIS, A. M., BENNETT, G. F., GRIGGS, G., and ALLEN, T. "Collecting *Simulium venustum* Female in Fan Traps and on Silhouettes with the Aid of Carbon Dioxide" (*Canadian Journal of Zoology*, vol. 45, no. 6, pt. 1, Nov. 1967, pp. 1011-17).
- FARKAS-HIMSLEY, H. "Evaluation of Sellers Medium in Identification of Some Gram-Negative Bacteria" (*Applied Microbiology*, vol. 15, no. 3, May 1967, pp. 661-4).
- "Isolation and Identification of *Pseudomonas pseudomallei*" (*Bacteriological Proceedings*, 1968, p. 107).
- "Isolation and Identification of *Pseudomonas pseudomallei*" (*Canadian Journal of Public Health*, vol. 59, no. 1, Jan. 1968, p. 39).
- GEAR, H. S. (ed.) "Medical Education in the Service of Mankind", Proceedings of the 3rd World Conference on Medical Education, New Delhi, 1966 (*Journal of Medical Education*, vol. 43, no. 2, Feb. 1968).
- GREENE, M. E. "The 'Sarah Binks' Style of Bibliographic Citation" (*Proceedings of the Departmental Librarians*, vol. 29, no. 2, June 1968, pp. 105-7).
- HARGRAVE, N., MILNE, H., and CAHOON, M. C. "Survey of Nutrition Education by Home Economists and Dietitians in Metropolitan Toronto. Parts I and II" (*Canadian Nutrition Notes*, vol. 23, no. 9, Nov. 1967, pp. 97-103; no. 10, Dec. 1967, pp. 109-14).
- HASTINGS, J. E. F. *Monograph on the Organization of Medical Care within the Framework of Social Security: Canada*. Geneva: International Labour Office, 1967. Pp. 170.
- HASTINGS, J. E. F., and MOSLEY, W. *Les Services de santé communautaires organisés*. Ottawa: Queen's Printer, 1964.
- JAKUS, C. M., McCLURE, L., and WARDLAW, A. C. "The Stability of the Protective Antigen and Histamine-Sensitizing Factor of *Bordetella pertussis* to Acid and Alkali" (*Canadian Journal of Microbiology*, vol. 14, no. 2, Feb. 1968, pp. 147-51).
- JAYAWARDENE, A. F. P., and FARKAS-HIMSLEY, H. "Vibriocin: A Bacteriocin from *Vibrio comma*" (*Bacteriological Proceedings*, 1968, p. 53).
- KAPLAN, M. M., WIKTOR, T. J., MAES, R. F., CAMPBELL, J. B., and KOPROWSKI, H. "Effect of Polyions on the Infectivity of Rabies Virus in Tissue Culture: Construction of a Single-Cycle Growth Curve" (*Journal of Virology*, vol. 1, no. 1, Feb. 1967, pp. 145-51).
- KINGSLEY, V. V. *Bacteriology Primer in Air Contamination Control*. Toronto: University of Toronto Press, 1967. Pp. 37.
- LEERS, W.-D., ROZEE, K. R., and WARDLAW, A. C. "Immunodiffusion and Immunoelectrophoretic Studies of Reovirus Antigens" (*Canadian Journal of Microbiology*, vol. 14, no. 2, Feb. 1968, pp. 161-4).
- LE RICHE, W. H. "World Incidence and Prevalence of the Major Communicable Diseases"; in *Ciba Symposium on Health of Mankind*, ed. Gordon Wolstenholme and Maeve O'Connor, pp. 1-46. London: Churchill, 1967.
- LE RICHE, W. H., and CSIMA, A. "A Long-Acting Appetite Suppressant Drug Studied for 24 Weeks in both Continuous and Sequential Administration" (*Canadian Medical Association Journal*, vol. 97, no. 17, Oct. 21, 1967, pp. 1016-20).
- MACKAY, J. S. "The Rational Selection of Liver Function Tests" (*Applied Therapeutics*, vol. 10, no. 4, April 1968, pp. 257-61).
- MAES, R. F., KAPLAN, M. M., WIKTOR, T. J., CAMPBELL, J. B., and KOPROWSKI, H. "Inhibitory Effect of a Cytidine Analog on the Growth of Rabies Virus: Comparative Studies with

- Other Metabolic Inhibitors"; in *The Molecular Biology of Viruses*, ed. J. S. Colter and W. Paranchych, pp. 449-62. New York: Academic Press, 1967.
- MASTROMATTEO, E. "Les Effets de la lutte contre le feu sur la santé des sapeurs-pompiers" (*Revue Technique du Feu*, no. 71, oct. 1967, pp. 34-8).
- "Noxious Gases in Mining Operations" (*Canadian Mining Journal*, vol. 88, no. 10, Oct. 1967, pp. 75-8).
- MCCRACKEN, G. F. "A Comparison of Provincial Hospital Plans" (*Canadian Hospital Association Journal*, vol. 44, no. 9, Sept. 1967, pp. 54-8).
- MCLEAN, D. M. "Water-borne Viral Infections"; in *Water Resources of Canada*, ed. C. E. Dolman, pp. 212-27. Toronto: University of Toronto Press, 1967.
- MCLEAN, D. M., and BROWN, J. R. "Marine and Freshwater Virus Dispersal" (*Canadian Journal of Public Health*, vol. 59, no. 3, March 1968, pp. 100-4).
- MCQUEEN, R. J. C. "Centralized Laboratory Programs" (*Hospital Administration in Canada*, vol. 10, no. 2, Feb. 1968, pp. 59-60).
- "Hospitals with Coronary Care Units Show Upswing in Survival Rates" (*ibid.*, vol. 9, no. 8, Aug. 1967, pp. 37-8).
- "Monorail Distribution System Seen in Action in Dutch Hospital" (*ibid.*, vol. 9, no. 4, April 1967, pp. 65-6).
- "Regional Planning in Administration" (*ibid.*, vol. 9, no. 7, July 1967, pp. 41-2).
- "Total Health Care Complex" (*ibid.*, vol. 10, no. 1, Jan. 1968, p. 53).
- "Trends in Hospital Mergers" (*ibid.*, vol. 9, no. 12, Dec. 1967, pp. 45-6).
- MOTT, F. D. "Medical Services Insurance: The Next Phase in Canada's National Health Program" (*Medical Care Review*, vol. 24, no. 7, July 1967, pp. 521-36; no. 8, Aug. 1967, pp. 615-43; *Medical Services Journal, Canada*, vol. 23, no. 9, Oct. 1967, pp. 1153-86).
- "Patterns of Care in Meeting the Demand"; in *Comprehensive Health Care for Children and Families*, Proceedings of 6th Bi-regional Conference sponsored by the Schools of Public Health, University of Minnesota and University of Michigan, Dearborn, Michigan, Jan. 17-19, 1967, pp. 17-32.
- "What More Prepayment for Medical Services will do to Hospitals" (*Medical Care*, vol. 5, no. 5, Sept.-Oct. 1967, pp. 325-33).
- MURRAY, A. B., ANDERSON, D. O., MOGHADAM, H. K., CAMBON, K. G., and ROBINSON, G. C. "A Survey of Hearing Loss in Vancouver School Children. Part II. The Association between Secretary Otitis Media and Enlarged Adenoids, Infection and Nasal Allergy" (*Canadian Medical Association Journal*, vol. 98, no. 21, May 25, 1968, pp. 995-1001).
- OGUNBI, O. "Ukaiwa Virus Proliferation in Mosquitoes" (*Canadian Journal of Microbiology*, vol. 14, no. 2, Feb. 1968, pp. 125-9).
- PAINTER, R. H., WEBER, J. C. W., and WARDLAW, A. C. "Antitoxic and Antiviral Antibodies in Cohn Fractions of Human Plasma" (*Clinical and Experimental Immunology*, vol. 3, no. 2, Feb. 1968, pp. 179-87).
- PAKULA, R. "Cellular Sites for the Competence-Provoking Factor of Streptococci" (*Journal of Bacteriology*, vol. 94, no. 1, July 1967, pp. 75-9).
- RHODES, A. J. "Vaccination against Poliomyelitis in Canada" (*Canadian Journal of Public Health*, vol. 58, no. 10, Oct. 1967, pp. 467-8).
- RHODES, A. J., and VAN ROOYEN, C. E. *Textbook of Virology*, 5th. ed. Baltimore: Williams and Wilkins, 1968.
- ROBERTS, C. A. "Preventive Psychiatry"; in *Fundamentals of Psychiatry*, by I. Gregory. Philadelphia: Saunders, 1968.
- ROBINSON, G. C., ANDERSON, D. O., MOGHADAM, H. K., CAMBON, K. G., and MURRAY, A. B. "A Survey of Hearing Loss in Vancouver School Children. Part I. Methodology and Prevalence" (*Canadian Medical Association Journal*, vol. 97, no. 20, Nov. 11, 1967, pp. 1199-207).
- ROZEE, K. R., and LEERS, W. D. "Chloroform Inactivation of Reovirus Hemagglutinins" (*Canadian Medical Association Journal*, vol. 96, no. 10, March 11, 1967, pp. 597-9).
- RUDERMAN, A. P., and BRAVO, A. L. "Coordination between Medical Care Services of Ministries of Health and Social Security Agencies"; in *Coordination of Medical Services*, Scientific Publication No. 154, Pan American Health Organization, Oct. 1967.
- SABRY, Z. I. "Nutritive Value of Foods as Affected by Processing" (*Canadian Dietetic Association Journal*, vol. 29, no. 2, June 1968, pp. 105-8).
- SABRY, Z. I., VEEN, M. J., and BEATON, G. H. "Studies on the Eating Patterns of the Rat" (*7th International Congress on Nutrition Proceedings*, vol. 2, 1966, pp. 205-9).
- SEYFRIED, P. L. "An Approach to the Classification of Lactobacilli using Computer-Aided Numerical Analysis" (*Canadian Journal of Microbiology*, vol. 14, no. 4, April 1968, pp. 313-18).
- SHEPARD, R. J. Contributions to International Symposium on Physical Activity and Cardiovascular Health (*Canadian Medical Association Journal*, vol. 96, no. 12, March 25, 1967, pp. 695-6, 702-4, 878-9, 888-9, 899, 912-15).
- "Ethical Considerations in Human Experimentation" (*Journal of Canadian Association of Health, Physical Education and Recreation*, vol. 33, no. 5, 1967, pp. 13-16).
- "The Maximum Sustained Voluntary Ventilation in Exercise" (*Clinical Science*, vol. 32, no. 2, April 1967, pp. 167-76).

- "Physical Performance of Unacclimatized Men in Mexico City" (*Research Quarterly*, vol. 38, no. 2, May 1967, pp. 291-9).
- "Physiological Determinants of Cardio-respiratory Fitness" (*Journal of Sports Medicine & Physical Fitness*, vol. 7, no. 3, Sept. 1967, pp. 111-34).
- "Practical Indices of Metabolic Activity: An Experimental Comparison of Pulse Rate and Ventilation" (*Arbeitsphysiologie*, vol. 25, 1968, pp. 13-24).
- "The Prediction of 'Maximal' Oxygen Consumption using a New Progressive Step Test" (*Ergonomics*, vol. 10, no. 1, 1967, pp. 1-15).
- "The Prediction of Maximum Oxygen Intake from Post-exercise Pulse Readings" (*Arbeitsphysiologie*, vol. 24, 1967, pp. 31-8).
- "Pulse Rate and Ventilation as Indices of Metabolic Load. I. Theoretical Aspects" (*Archives of Environmental Health*, vol. 15, no. 5, Nov. 1967, pp. 562-7).
- SHEPARD, R. J., JONES, G., and BROWN, J. R. "Some Observations on the Fitness of a Canadian Population" (*Canadian Medical Association Journal*, vol. 98, no. 21, May 25, 1968, pp. 977-84).
- SMITH, H. H., and FARKAS-HIMSLEY, H. "The Relationship of Pathogenic Coagulase-Negative Staphylococci to *Staphylococcus aureus*" (*Canadian Journal of Public Health*, vol. 59, Jan. 1968, p. 33).
- SMYTH, C. J., and FARKAS-HIMSLEY, H. "A Survey of Easter Island Staphylococci" (*Canadian Journal of Public Health*, vol. 59, no. 1, Jan. 1968, p. 36).
- VEEN, M. J., YEUNG, D. L., and BEATON, G. H. "Plasma Retinol Transport and Urinary Excretion in the Nephrotic Rat" (*7th International Congress on Nutrition Proceedings*, vol. 5, 1966, pp. 600-5).
- WEBB, JEAN F. "The Specialist Consultant in a Public Health Agency" (*Canadian Journal of Public Health*, vol. 59, no. 4, April 1968, pp. 155-8).
- WELING, S. V., FARKAS-HIMSLEY, H., and GOLDNER, M. "Inhibition of Staphylococcal Penicillinase by Cloxacillin" (*Canadian Journal of Public Health*, vol. 59, no. 1, Jan. 1968, pp. 33-4).

INSTITUTE OF CHILD STUDY

- BOLTON, ELDA. "Parents and Nursery Schools" (*Child Study*, vol. 29, no. 3/4, 1967, pp. 12-16).
- FLINT, B. M. "A Developmental Process: Damage or Distortion" (*Child Study*, vol. 30, no. 2, 1968, pp. 23-8).
- GALLOWAY, M. *In Canada Music Series, Book I*. Toronto: Thomas Nelson & Son, 1967. Pp. 89.
- GRAPKO, M. F. "Implications of Work and Play" (*Child Study*, vol. 29, no. 3/4, 1967, pp. 28-31).
- McKENZIE, D. I. "Another Look at Play" (*Child Study*, vol. 29, no. 3/4, 1967, pp. 33-8).
- NORTHWAY, M. L. *A Primer of Sociometry*, rev. ed. Toronto: University of Toronto Press, 1968, Pp. 56.
- "Blue Lake and Rocky Shore" (*Ontario Camping Association Digest*, 1968, pp. 162-8).
- "Introducing Child Study to Education" (*Child Study*, vol. 30, no. 1, 1968, pp. 3-7).
- "Karl Bernhardt - The Man Who Stayed at Home" (*Ontario Psychological Association Quarterly*, vol. 20, no. 3, 1967, pp. 116-18).
- DE ROUX, M. "Writing is Fun" (*Child Study*, vol. 29, no. 3/4, 1967, pp. 46-9).
- SCHERMANN, ADA. "Cognitive Goals in the Nursery School: Criteria for Evaluating Material" (*Child Study*, vol. 29, no. 3/4, 1967, pp. 50-7).
- TAYLOR, ANN. "Institutionalized Infants' Concept Formation Ability" (*American Journal of Orthopsychiatry*, vol. 30, no. 1, 1968, pp. 110-15).

SCHOOL OF BUSINESS

- CRISPO, J. H. G. (ed.) *Wages, Prices, Profits and Economic Policy*. Toronto: University of Toronto Press, 1968. Pp. 148.
- DOOLEY, J. E. "A Course in Computer Programming and Applications for Pharmacy Students"

- (*Proceedings of the Twenty-Fourth Annual Meeting of the Canadian Conference of Pharmaceutical Faculties*, Toronto, 1967, pp. 169-78).
- EVANS, M. G. Review, *Canadian Personnel and Industrial Relations Journal*, vol. 15, no. 1, 1968, pp. 77-8.
- HECHT, M. R. "Education - Expediter of Change"; in *Report of Proceedings of Change and the Dynamic Organization*, pp. 20-3. Toronto: University of Toronto, School of Business, 1967.
- KYLE, J. D. "Education and Research Highlights - A Big Year for Federation" (*Canadian Journal of Personnel and Industrial Relations*, vol. 14, Nov. 1967, pp. 21-2).
- "Essentials of Management Development" (*Business Quarterly*, vol. 32, winter 1967, pp. 36-42).
- MAXWELL, S. R. "A Comment on the Bennis Theory of Organization Revitalization" (*California Management Review*, vol. 10, no. 2, winter 1967, pp. 95-6).
- "The Future Relation between Post-graduate and Post-experience Management Education" (*Bulletin of the Association of Teachers of Management*, vol. 7, no. 4, Aug. 1967, p. 26-34).
- "A Reply to the Critics on Post-graduate and Post-experience Management Education" (*Bulletin of the Association of Teachers of Management*, vol. 7, no. 5, Dec. 1967, pp. 40-2).
- "Research on Organization Effectiveness: Some Problems" (*Annual Proceedings, Canadian Institute of Industrial Relations*, 1967).
- SARJEANT, J. A. "Determining Furniture Production by Linear Programming" (*The Business Quarterly*, vol. 32, no. 3, autumn 1967, pp. 52-8).
- "Improving Management Productivity" (*Industrial Canada*, vol. 68, no. 2, June 1967, pp. 21-3).
- SAWYER, J. A. "The Use of Canadian Input-Output Tables for Forecasting the Demand for Commodities" (*American Marketing Association, Proceedings of the International Marketing Congress*, Toronto, 1967).
- Review, *Canadian Journal of Economics and Political Science*, vol. 33, no. 4, Nov. 1967, pp. 633-4.
- SOMMERS, M. S. (with KERNAN, J. B.) "The Behavioral Matrix: A Closer Look at the Industrial Buyer"; in *Concepts In Modern Marketing*, ed. Ralph Day, pp. 131-48. Scranton, Penn.: International Textbook Co., 1968.
- "Role Theory and Behavioral Style" (*Journal of Purchasing*, vol. 3, Nov. 1967, pp. 27-38).
- VOSBURGH, R. E. "Markov Models and Market Analysis" (*Proceedings, Tenth Annual Conference, Association of Canadian Schools of Business*, 1966, section 2, pp. 1-10).
- "Morality and Marketing" (*The Marketer*, vol. 3, no. 1, fall 1967, pp. 7, 8, 14).
- "M.B.A.: New Interests" (*American Marketing Association Newsletter*, vol. 16, no. 9, May 1965, pp. 5-8).
- VOSBURGH, R. E. (with MOYER, M. S.) (ed.) *Marketing for Tomorrow, Today*. Chicago: American Marketing Association, 1967. Pp. 340.

THE LIBRARY

- BREGZIS, R. "Pilot MARC Tests of University of Toronto Point to Materials Access Revolution" (*Canadian University*, vol. 2, no. 6, Nov.-Dec. 1967, pp. 3-31).
- "Query Language for the Reactive Catalogue"; in *Information Retrieval: The Users' Viewpoint on Aid to Design*. Fourth Annual National Colloquium on Information Retrieval, ed. Albert B. Tonik, pp. 77-91. Philadelphia: International Information, 1967.
- "The Toronto University Library/MARC Pilot Project"; in *Organization and Handling of Bibliographic Records by Computer*, ed. N. S. M. Cox and M. W. Grose. Pp. 118-29. Newcastle-upon-Tyne: Oriel Press, 1967.
- FEELEY, J. "The Library Environment" (*Explorations*, Christmas 1967, pp. 90-6).
- GODEFROY, I. (ed.) *University of Toronto Newsletter*.
- McCAHILL, M. "List of Canadian Subject Headings" (*Feliciter*, vol. 13, no. 5/6, Jan.-Feb. 1968, pp. 15-16).
- PRODRICK, R. "Automation Can Transform Reference Services" (*Ontario Library Review*, vol. 51, no. 3, Sept. 1967, pp. 145-50).
- SMITH, H. L. "The Financial Implications of Affiliation Agreements between the CLA-ACB and Other Library Associations" (*Canadian Library*, vol. 24, no. 6, May 1968, pp. 573-7).
- VERYHA, W. "Problems in Classification of Slavic Books with Library of Congress Classification Schedules and Subject Headings" (*College and Research Library*, vol. 28, no. 4, July 1967, pp. 277-83).
- WINEARLS, J. Review, *SLA Geography and Map Division Bulletin*, no. 68, June 1967, p. 20-1.

DEPARTMENT OF COMPUTER SCIENCE

- FARKAS, I. Review, *American Mathematical Monthly*, vol. 75, no. 5, 1968, p. 566.
- FERENTZY, E. N. *Computer-Graphics and Computer Movies*. University of West Berlin, 1968.
- GOTLIEB, C. C. "How Many Computers per University?"; in *University Education in Computing Science*, pp. 93-104. New York: Academic Press, 1968.
- GOTLIEB, C. C. (with CORNELL, D. G.) "Algorithms for Finding A Fundamental Set of Cycles for an Undirected Linear Graph" (*Communications of the Association for Computing Machinery*, vol. 10, no. 12, Dec. 1967, pp. 780-3).
- GOTLIEB, C. C. (with GABURA, J.) "System for Key punching" (*Quarterly Bulletin of the Computer Society of Canada*, vol. 8, no. 1, winter 1967-68, pp. 14-22).
- HULL, T. E. "Curriculum 68; Recommendations for Academic Programs in Computer Science" (*ACM Communications*, vol. 11, 1968, pp. 151-97).
- "The Doctoral Program in Computing Science"; in *University Education in Computing Science*, pp. 155-68. New York: Academic Press, 1968.
- "A Search for Optimum Methods for the Numerical Integration of Ordinary Differential Equations" (*SIAM Review*, vol. 9, no. 4, 1967, pp. 647-54).
- HULL, T. E. (with NICHOLLS, G. T., and WONG, R. C.) *Introduction to Algorithms*. Toronto: W. J. Gage, 1967.
- JUDY, R. W. "Information, Control, and Soviet Economic Management"; in *Mathematics and Computers in Soviet Economic Planning*, ed. J. P. Hardt, M. Hoffenberg, N. Kaplan and H. S. Levine, pp. 1-48. New Haven: Yale University Press, 1967.
- "A Report on Visits to Moscow Computing Center Institutes" (*ASTE Bulletin*, vol. 9, no. 1, spring 1967, pp. 1-8).
- KAHAN, W. "Laguerre's Method and a Circle which Contains at Least One Zero of a Polynomial" (*SIAM Journal on Numerical Analysis*, vol. 4, no. 3, Aug. 1967, pp. 474-83).
- MASON, J. C. "A Chebyshev Method for the Numerical Solution of the One-Dimensional Heat Equation"; in *Proceedings of the 22nd National Conference of the Association for Computing Machinery*, pp. 115-24. Washington, D.C.: Thompson Book, 1967.
- MEZEL, L. "Canada Reviews the Computer in Society" (*Datamation*, vol. 13, no. 7, July 1967, pp. 63-7).
- "Computers and the Visual Arts" (*Annual Survey of Recent Developments, Computers and the Humanities*, vol. 2, no. 1, Sept. 1967, pp. 41-2).

INSTITUTE FOR AEROSPACE STUDIES

- ANDERSON, J. H. B., OSBORNE, P. J. K., and GLASS, I. I. "Gladstone-Dale Constants for the Oxygen Atom and Molecule" (*Physics of Fluids*, vol. 10, no. 8, Aug. 1967, p. 1848).
- CHU, W. T., STRONG, D. R., and SIDDON, T. E. "Pressure Fluctuations on a Flat Plate with Oblique Jet Impingement" (*National Aeronautics and Space Administration*, CR-839, July 1967).
- DE LEEUW, J. H., DUKOWICZ, J. K., and MATTHIAS, C. S. "The Flat Plate Magneto-hydrodynamic Boundary Layer in a Transverse Magnetic Field" (*Canadian Aeronautics and Space Institute Transactions*, vol. 1, no. 1, March 1968, p. 45).
- DE LEEUW, J. H., and GRAF, K. "Comparison of Langmuir Probes and Microwave Diagnostic Techniques" (*Journal of Applied Physics*, vol. 38, Oct. 1967, p. 4466).
- ETKIN, B. "Dynamics of Flight Vehicles" (*Proceedings of the Canadian Congress of Applied Mechanics*, May 1967, p. 29).
- "Dynamics of Flight Vehicles" (*Canadian Congress of Applied Mechanics*, Centennial Year, 1967).
- ETKIN, B., and CLODMAN, J. "Problems of Flight in Low Level Turbulence" (*Proceedings of the First Canadian Conference on Micrometeorology*, part 2, Meteorological Service of Canada, 1967, pp. 371-5).
- FLAGG, R. F. "Ionization Gauge Circuit for Detection of Multiple Shock and Reflected Detonation Waves" (*Review of Scientific Instruments*, vol. 38, no. 9, Sept. 1967, pp. 1336-7).
- FRENCH, J. B. (with COX, J. W., and SCHAEFER, E. J.) *Planetary Programs: Flight Hardware Development for a Planetary Entry Mass Spectrometer*. Martin Marietta Corporation Report No. PR-22-10-94-24, Feb. 1968.
- "Planetary Programs: Analysis of Planetary Atmospheres at High Altitude by Mass Spectrometry". Martin Marietta Corporation, Report No. P-68-20, Feb. 1968.
- FRENCH, J. B., and DE LEEUW, J. H. *Operational Considerations for the Martian Atmospheric Entry Experiment*. Aerospace Engineering and Research Consultants Limited, Report 67-10, July 1967.
- GARG, S. K. "Comment on Shock Wave Propagation in Perspec Spheres" (*International Journal of Mechanical Sciences*, vol. 9, 1967, p. 727).

- GLASS, I. I. "Research Frontiers at Hypervelocities" (*Canadian Aeronautics and Space Journal*, vol. 13, no. 8, Oct. 1967, pp. 348-66; no. 9, Nov. 1967, pp. 401-26).
- "Theoretical and Experimental Nozzle and Corner Expansion Flows of Dissociated and Ionized Gases" (*Fluid Dynamics Transactions*, vol. 3, 1967, pp. 221-82).
- Reviews, *Applied Mechanics Reviews*, vol. 20, no. 6, June 1967, p. 624; no. 11, Nov. 1967, p. 1111; vol. 21, no. 2, Feb. 1968, p. 184; no. 3, March 1968, p. 299; *Journal of the Acoustical Society of America*, vol. 41, no. 4, 1967, p. 889.
- HUGHES, P. C. "Optimum Transient Riddance in Damped Linear Systems" (*Canadian Aeronautics and Space Institute Transactions*, vol. 1, no. 1, March 1968, pp. 14-20).
- HUGHES, P. C., and ETKIN, B. "Explanation of the Anomalous Spin Behaviour of Satellites with Long Flexible Antennae" (*Journal of Spacecraft and Rockets*, vol. 4, no. 9, Sept. 1967, pp. 1139-45).
- MEASURES, R. M. "A New Approach to Localized Diagnostics" (*Proceedings of the 8th International Conference on Ionization Phenomena in Gases*, Vienna, Paper 5.6.6, Aug. 27-Sept. 2, 1967).
- PATTERSON, G. N. "Another Milestone" (*Canadian Aeronautics and Space Institute Transactions*, vol. 1, no. 1, March 1968, p. 1).
- REDDY, N. M. "Use of Self-calibrating Catalytic Probes to Measure Free-Stream Atom Concentration" (*Physics of Fluids*, vol. 10, no. 9, Sept. 1967, pp. 1905-10).
- TOWNSEND, S. J. *Design and Construction of a 3-Megawatt Magnetogasdynamic Power Generation Facility at U.T.I.A.S.* North Atlantic Treaty Organization, AGARDograph-88, May 1968.

Reports of University of Toronto Institute for Aerospace Studies:

- BELOZEROV, A. *Study of the Initial Ionization Process in a Strong Shock Wave*. Report no. 131, June 1968. Pp. viii, 37, figs. 40.
- FINE, J. H. *An Attitude Control System to Constrain the Skin Temperature of a Manned Lifting Spacecraft during Reentry into the Earth's Atmosphere*. Report no. 126, July 1967. Pp. ix, 101, figs. 37.
- KNAPP, W. *The Effects of Specimen Grain Size and Environment in the Fatigue Life of OFHC Copper*. Technical note no. 124, June 1968. Pp. 10, figs. 50.
- MCLEOD, M. G. *A Spinning Hot-Wire Anemometer for Simultaneous Measurement of u , v and w* . Technical Note no. 125, March 1968. Pp. vi, 19, figs. 16.
- MEASURES, R. M. *Localized Diagnostic Possibilities of Selective Excitation Spectroscopy*. Report no. 127, Sept. 1967, Pp. 30, figs. 11.
- RAVINDRAN, R. *Statistical and Metallographic Aspects of Fatigue Failure Mechanisms in Metals*. Technical Note no. 123, Feb. 1968. Pp. vii, 26, figs. 20.
- RIBNER, H. S. *Acoustic Energy Flux from Shock-Turbulence Interaction*. Technical Note no. 108, July 1967. Pp. 11, figs. 5.
- *Quadrupole Correlations Governing the Pattern of Jet Noise*. Report no. 128, Nov. 1967. Pp. vii, 21, figs. 9.
- SINCLAIR, S. R. M. *Shock Wave Structure in Gas Mixtures and Plasmas*. Report no. 130, May 1968. Pp. vii, 72, figs. 22.
- STUBBE, E. J. *Magnetohydrodynamic Flow near a Stagnation Point*. Technical Note no. 122, Jan. 1968. Pp. viii, 29, figs. 27.
- TENNYSON, R. C., and WELLES, S. W. *Analysis of the Buckling Process of Circular Cylinders under Axial Compression*. Report no. 129, Nov. 1967. Pp. vi, 20, figs. 20.
- TIRUMALESA, D. *Nozzle Flows with Coupled Vibration and Dissociational Nonequilibrium*. Report no. 123, Aug. 1967. Pp. x, 118, figs. 12.
- WEYNANTS, R. R. *An Experimental Investigation of Shock-Wave Diffraction over Compression and Expansion Corners*. Technical Note no. 126, April 1968. Pp. vii, 32, figs. 55.

GREAT LAKES INSTITUTE

- ANDERSON, D. V. *Diurnal Motions of the Thermocline of Lake Ontario Caused by Meteorological and Tidal Forces*. Ontario Department of Lands and Forests Research Report no. 77, 1967. Pp. 5.
- "Review of Basic Statistical Concepts in Hydrology"; in *Proceedings of Hydrology Symposium*, no. 5. Ottawa: Queen's Printer, 1966.
- ANDERSON, D. V., and FRY, F. E. J. *The Thermal Regime of Georgian Bay (1953-1954)*. Ontario Department of Lands and Forests Research Report no. 80, 1967. Pp. 32.
- ANDERSON, D. V., and MATHESON, D. H. *Hamilton Bay - The Model of a Natural Waste Treatment Reactor*. Ontario Department of Lands and Forests Research Report no. 73, 1967. Pp. 15.
- CSANADY, G. T. "Large-Scale Diffusion Experiments at Douglas Point" (*Proceedings of the 10th Conference on Great Lakes Research*, International Association for Great Lakes Research, publication no. 1, 1967, pp. 274-6).

- MISENER, A. D. "The Uniqueness of the Great Lakes"; in *Water Resources of Canada*, ed. C. E. Dolman, pp. 73-5. Toronto: University of Toronto Press, 1967.
- NALEWAJKO, C. "Phytoplankton Distribution in Lake Ontario" (*Proceedings of the 10th Conference on Great Lakes Research*, International Association for Great Lakes Research, publication no. 1, 1967, pp. 63-9).
- RODGERS, G. K. "The Thermal Regime and Circulation in the Great Lakes"; in *Water Resources of Canada*, ed. C. E. Dolman, pp. 87-95. Toronto: University of Toronto Press, 1967.
- SIMPSON, R. B., and ANDERSON, D. V. *The Surface Tides of Lake Ontario*. Ontario Department of Lands and Forests Research Report no. 76, 1967. Pp. 41.
- Reports of the Great Lakes Institute, University of Toronto:*
- BRINKHURST, R. O. *Sampling the Benthos*. PR. 32, 1967. Pp. 7.
- BRINKHURST, R. O., HAMILTON, A. L., and HERRINGTON, H. B. *Components of the Bottom Fauna of the St. Lawrence Great Lakes*. PR. 33, 1968. Pp. 49.
- CSANADY, G. T. *Douglas Point Diffusion Experiments, 1966*. PR. 28, 1967. Pp. 45.
- CSANADY, G. T., JONES, I. S. F., and KENNEY, B. C. *Douglas Point Saturation Run, 1967*. PR. 30, 1967. Pp. 52.
- HAMBLIN, P. F., and RODGERS, G. K. *The Currents in the Toronto Region of Lake Ontario*. PR. 29, 1967. Pp. 132.
- Great Lakes Institute Annual Report, 1967*. PR. 31, 1967. Pp. 70.

INSTITUTE OF BIO-MEDICAL ELECTRONICS

- COBBOLD, R. S. C. Review, *Canadian Medical Association Journal*, vol. 97, no. 26, Dec. 23/30, 1967, p. 1619.
- LLEWELLYN THOMAS, E. "Abnormal Behavior in Non-living Systems" (*Diseases of the Nervous System*, supplement *Toward a Definition of Schizophrenia*, vol. 29, no. 5, May 1968, pp. 53-67).
- "Extensions of Man" (*Canadian Scientist*, vol. 11, no. 2, May-June 1968, pp. 14-15).
- "Machine Man Interface" (*Agricultural Engineering*, vol. 48, no. 9, Sept. 1967, pp. 495, 510-11).
- "Machines Around Us" (*The Decisive Years*, vol. 6, 1968, pp. 19-24).
- "Medicine - One Hundred Years Hence, The Impact of Technology" (*The Medical Graduate*, vol. 14, no. 1, Centennial issue 1967, pp. 12-14).
- "Poetry" (*Canadian Poetry*, vol. 31, no. 3, May 1968, p. 57; *Journal of the American Medical Association*, vol. 204, no. 1, April 1, 1968, p. 124).
- LLEWELLYN THOMAS, E., et al. "Biophysics"; in *Physics in Canada, Survey and Outlook*, prepared by a Study Group of the Canadian Association of Physicists headed by D. C. Rose, pp. 341-64. Ottawa: Queen's Printer, 1967.
- MOODY, N. F. "Square Wave Flowmeter" (*Medical Research Engineering*, vol. 6, no. 1, 1967, p. 8).
- MOODY, N. F., et al. "Brain Tumor Localization using an Electrical Impedance" (*Journal of Neurosurgery*, vol. 28, no. 1, 1968, pp. 35-44).
- "Imaging of Biological Structures using the Principle of Holography" (*Proceedings of the Conference on Engineering in Medicine and Biology, 1967*, p. 10.7).
- "The Impedance Profile of the Human Brain as a Localization Technique in Stereencephalotomy" (*Confinia Neurologica*, vol. 29, 1967, pp. 192-6).
- "A New Three-Electrode Impedance Probe Having Clinical Application" (*Pre-conference Digest of International Electronics Conference*, Sept. 1967, pp. 60-1).
- "A Versatile Gamma-Ray Camera for Dynamic or Static Isotope Studies" (*Transactions of the American Nuclear Society*, vol. 11, no. 1, June 1968, p. 64).
- O'BEIRNE, H., et al. "Use of the Digital Computer in Electrocardiographic Studies" (*Canadian Medical Association Journal*, vol. 98, no. 2, Jan. 13, 1968, pp. 107-8).

INSTITUTE FOR THE HISTORY AND PHILOSOPHY OF SCIENCE AND TECHNOLOGY

- ABRAMS, J. W. "Science, Technology and the Humanities" (*Explorations*, no. 21, April 1968, pp. 87-96).
- DRAKE, S. "Galileo: A Biographical Sketch"; in *Galileo Man of Science*, ed. E. McMullin, pp. 52-66. New York: Basic Books, 1967.
- *Galileo Galilei: Dialogue Concerning the Two Chief World Systems*, 2nd rev. ed. Berkeley and Los Angeles: University of California Press, 1967. Pp. xxvii, 496.

- "Galileo in English Literature of the Seventeenth Century"; in *Galileo Man of Science*, ed. E. McMullin, pp. 415-31. New York: Basic Books, 1967.
- "Bio-bibliographical Introduction"; in *Mathematical Collections and Translations of Thomas Salusbury*, pp. 1-27. London: Dawson's of Pall Mall; Los Angeles: Zeitlin and Ver Brugge, 1967.
- "A Long-Lost Letter of Galileo to Peiresc on a Magnetic Clock"; in *A Letter from Galileo Galilei*, by B. Dibner, pp. 45-56. Norwalk: Burndy Library, 1967.
- "Mathematics, Astronomy and Physics in the Work of Galileo"; in *Art, Science and History in the Renaissance*, ed. C. Singleton, pp. 305-30. Baltimore: Johns Hopkins University Press, 1967. (Published in May 1968.)
- "On the conflicting documents of Galileo's trial"; in *Atti del Simposio su Galileo Galilei nella storia e nella filosofia della scienza*, pp. 55-65. Florence: Gruppo Italiano di Storia Delle Scienze, 1967.
- "A Seventeenth-Century Malthusian" (*Isis*, vol. 58, no. 3, 1967, pp. 401-2).

CONNAUGHT MEDICAL RESEARCH LABORATORIES

- ABELSETH, M. K. "Further Studies on the Use of ERA Rabies Vaccine in Domestic Animals" (*Canadian Veterinary Journal*, vol. 8, no. 10, Oct. 1967, pp. 221-7).
- BROWN, M. "The Health Services Troika - Where is it Going?" (*Canadian Journal of Public Health*, vol. 58, no. 9, Sept. 1967, pp. 385-90).
- CORKILL, J. M. "The Stability of the Components in DPT-Poliomyelitis and DPT-Poliomyelitis-Measles Vaccines"; in *International Symposium on Combined Vaccines, Marburg/Lahn, 1967*; Symposia Series in Immunobiological Standardization, vol. 7, pp. 165-78. Basel: S. Karger, 1967.
- CRAWLEY, J. F. "The New Pigs" (*Canadian Scientist*, vol. 2, no. 1, March 1968, pp. 26-7).
- DOLMAN, C. E. (ed.) *Water Resources of Canada*. Toronto: University of Toronto Press, 1967. Pp. xviii, 251.
- "Introduction"; *ibid.*, pp. ix-xviii.
- "The McNaughton-Moss Confrontation"; *ibid.*, pp. 25-7.
- "The Waters of Wide Agony"; *ibid.*, pp. 228-51.
- "Paul Ehrlich and William Bulloch: A Correspondence and Friendship (1896-1914)" (*Clio Medica*, vol. 3, no. 1, Feb. 1968, pp. 65-84).
- "Twenty Years' Encounters with *Clostridium botulinum*. With Particular Reference to Mutational Phenomena" (*Canadian Journal of Public Health*, vol. 59, no. 1, Jan. 1968, p. 36).
- "William Hamilton Fyfe, 1878-1965" (*Proceedings of the Royal Society of Canada*, 4th series, vol. 5, 1967, pp. 77-84).
- FARRELL, L. N. "Transmissible Agents from Human Leukemic Bone Marrow"; in *National Cancer Institute of Canada Annual Report 1966-1967*, pp. 96-7.
- FENJE, P. "Advances in Rabies Research" (*Canadian Journal of Public Health*, vol. 59, no. 6, June 1968, pp. 217-28).
- GLASS, D. G. (with GOLDNER, M., and FLEMING, P. C.) "Characteristics of *Aerobacter* Beta-lactamase" (*Canadian Journal of Microbiology*, vol. 14, no. 2, Feb. 1968, pp. 139-45).
- HEALY, G. M., and PARKER, R. C. "Selective Nucleolar Uptake of α -acid Glycoprotein by Mammalian Cells in Tissue Culture" (*Biochimica et Biophysica Acta*, vol. 148, no. 2, Nov. 28, 1967, pp. 556-8).
- IVES, D. A. J., and TOSONI, A. L. "Purification of CA-7, a Thrombolytic Fungal Protease" (*Canadian Journal of Biochemistry*, vol. 45, no. 7, July 1967, pp. 1055-65).
- JAKUS, C. M., McCLURE, L., and WARDLAW, A. C. "The Stability of the Protective Antigen and Histamine-Sensitizing Factor of *Bordetella pertussis* to Acid and Alkali" (*Canadian Journal of Microbiology*, vol. 14, no. 2, Feb. 1968, pp. 147-51).
- LANDI, S., ASHLEY, M. J., and GRZYBOWSKI, S. "Tuberculin Sensitivity following the Intradermal and Multiple Puncture Methods of BCG Vaccination" (*Canadian Medical Association Journal*, vol. 97, no. 5, July 29, 1967, pp. 222-5).
- LANDI, S., and HELD, H. R. "Interaction of 8-Hydroxyquinoline Sulfate with Components Present in a Tuberculin PPD Solution. II. Effects of 8-Hydroxyquinoline on Metallic Impurities" (*Journal of Pharmaceutical Sciences*, vol. 57, no. 4, April 1968, pp. 605-9).
- LANDI, S., HELD, H. R., HAUSCHILD, A. H. W., and HILSHEIMER, R. "Preparation of ^{14}C -labeled Tuberculin Purified Protein Derivative" (*Applied Microbiology*, vol. 15, no. 4, July 1967, pp. 839-43).
- LANDI, S., and McCLURE, R. L. "A Comparison between Two Tuberculins, International Standard O.T. and U.S.A. Standard O.T."; in *Conference on Evaluation of Procedures for Tuberculin Testing, National Institutes of Health, Bethesda, Md., February 28 and 29, 1968*, p. 3.
- LAWSON, K. F., WALKER, V. C. R., and CRAWLEY, J. F. "ERA Strain Rabies Vaccine; Duration of Immunity in Cattle, Dogs and Cats" (*Veterinary Medicine and Small Animal Clinician*, vol. 62, no. 11, Nov. 1967, pp. 1073-4).

- MOLONEY, P. J. "Active-Passive Immunization against Tetanus in Man"; in *Principles on Tetanus; Proceedings of the International Conference on Tetanus, Bern, July 15-19, 1966*, pp. 393-6. Bern: H. Huber, 1967.
- PAINTER, R. H. "Instability of Immune Serum Globulin Solutions, II: *In vivo* Studies on Solutions which Have Fragmented during Storage and on Those Fragmented by Digestion with Plasmin"; in [Transactions of] the XXIst Scientific Meeting of the Protein Foundation (*Vox Sanguinis*, vol. 13, no. 1, July 1967, pp. 57-8).
- PAINTER, R. H., and BRUCE, W. R. "Purification of Erythropoietin from Anaemic Sheep Plasma by Gel-Filtration"; in *Proceedings of the Canadian Federation of Biological Societies, 10th, 1967*, p. 120.
- PAINTER, R. H., BRUCE, W. R., and GOLDWASSER, E. "The Commercial Production of Erythropoietin from Anemic Sheep Plasma" (*Annals of the New York Academy of Sciences*, vol. 149, art. 1, March 29, 1968, pp. 71-4).
- PAINTER, R. H., WEBER, J. C. W., and WARDLAW, A. C. "Antitoxic and Antiviral Antibodies in Cohn Fractions of Human Plasma" (*Clinical and Experimental Immunology*, vol. 3, no. 2, Feb. 1968, pp. 179-87).
- ROBB, L. A. "Separation of Tetanus Toxin and Toxoid Proteins by Sephadex Gel" (*Canadian Journal of Microbiology*, vol. 13, no. 8, Aug. 1967, pp. 1021-5).
- "Tetanus Toxoid: Separation of Sensitizing Fraction" (*Canadian Journal of Public Health*, vol. 59, no. 1, Jan. 1968, p. 35).
- ROSCHLAU, W. H. E. "Thrombolytic Therapy with CA-7, a Fibrinolytic Enzyme from *Aspergillus oryzae*: A Report of Two Representative Cases" (*Canadian Medical Association Journal*, vol. 98, no. 16, April 20, 1968, pp. 757-61).
- SIEBENMANN, C. O. (with ASHLEY, M. J.) "Tuberculin Skin Sensitivity following BCG Vaccination with Vaccines of High and Low Viable Counts" (*Canadian Medical Association Journal*, vol. 97, no. 22, Nov. 25, 1967, pp. 1335-9).
- STAINER, D. W. "Preparation and Properties of Diphtheria Toxoids in Submerged Culture. I. Presence of Bovine Antigens; II. Purification, Detoxification, Antigenicity and Stability" (*Canadian Journal of Microbiology*, vol. 13, no. 8, Aug. 1967, pp. 963-8; vol. 14, no. 4, April 1968, pp. 327-30).
- "Separation of Bovine Sensitizing Material from Papain Digest of Beef Broth" (*ibid.*, vol. 13, no. 8, Aug. 1967, pp. 1001-8).
- WARDLAW, A. C., and APRILE, M. A. "Field Trials of Aluminium Adjuvant Vaccines and Toxoids: A Review"; in *International Symposium on Adjuvants of Immunity, Utrecht, 1966*; Symposia Series in Immunobiological Standardization, vol. 6, pp. 257-66. Basel: S. Karger, 1967.
- WILSON, R. J. "Simultaneous Production of Antibodies in Humans to Components of Combined Vaccines"; in *International Symposium on Combined Vaccines, Marburg/Lahn, 1967*; Symposia Series in Immunobiological Standardization, vol. 7, pp. 29-38. Basel: S. Karger, 1967.
- WILSON, S., and APRILE, M. A. "Hypersensitivity to Measles Vaccines - A Crossreactive Autoimmunity?"; in *Proceedings of the Canadian Federation of Biological Societies, 11th, 1968*, p. 152.
- WILSON, S., APRILE, M. A., and SASAKI, L. "The Antigenic Loci of Insulin" (*Canadian Journal of Biochemistry*, vol. 45, no. 7, July 1967, pp. 1135-44).
- WILSON, S. (with FALKMER, S.) "Comparative Aspects of the Immunology and Biology of Insulin" (*Diabetologia*, vol. 3, no. 6, Dec. 1967, pp. 519-28).

UNIVERSITY OF TORONTO PRESS

- BOHNE, H. "Happy Event in the Canadian Book World: *Canadian Books in Print*" (*Press Notes*, vol. 10, no. 3, March 1968; printed in *Publishers' Weekly*, New York, Feb. 12, 1968, and *The Bookseller*, London, Feb. 10, 1968).
- DORN, P., and MONTAGNES, I. "Private Printing" (*Press Notes*, vol. 10, no. 4, April 1968).
- GURNEY, R. "Short-Run Book and Journal Production" (*Book Production Industry*, Aug. 1967).
- HALPENNY, F. G. "The Thesis and the Book" (*Press Notes*, vol. 10, no. 1, Jan. 1968).
- " [Sic]: Quotations" (*ibid.*, vol. 10, nos. 5, 6, May-June 1968).
- "University Presses" (*Canadian Forum*, Aug. 1967, pp. 110-14).
- HARMAN, E. "Buchmesse: The Frankfurt Book Fair" (*Press Notes*, vol. 9, no. 11, Nov. 1967).
- JEANNERET, M. Article for symposium "The University Press: Defining its Role in an Era of Growth and Change" (*Book Production Industry*, 1968).
- SCHOEFFEL, R. "Towards the Millennium: John Stuart Mill's *Collected Works*" (*Press Notes*, vol. 11, no. 2, Feb. 1968).
- STIMPSON, D. C. "The University Bookroom" (*Press Notes*, vol. 9, no. 12, Dec. 1967).

3

PRESIDENT'S REPORT

FOR THE YEAR ENDED JUNE 1968
UNIVERSITY OF TORONTO

PART THREE



President's Report: Part Three



I

UNIVERSITY OF TORONTO

PRESIDENT'S
REPORT

PART THREE

FOR THE YEAR ENDED JUNE 1968

The President's Report is being printed in three sections this year. Part I contains the Acting President's report; Part II contains the reports of the Deans and Directors and staff publications; Part III contains the list of benefactions, the tables of the Office of Statistics and Records, and the report of the Executive Vice-President (Non-Academic). Part I is being sent to all persons and institutions on our mailing list. If you do not receive copies of the other two sections and wish to receive them, please address your request to the Office of the President, University of Toronto, Toronto 181, Ontario, Canada.



CONTENTS

BENEFACTIONS

I By Type of Donor	2
II By Type of Fund and Faculty	4
III For Year ended 30 June 1968	8

STATISTICAL APPENDIX TO THE REPORT OF THE REGISTRAR

I Distribution of the Academic Staff of the University and Federated Colleges	54
II Distribution of the Staffs of the Federated Colleges	55
III Enrolment of Students	
A Summary by Faculties	56
B Report by Faculty, Course and Academic Year	59
C Faculty of Arts and Science, by Colleges	68
D School of Graduate Studies, by Departments	73
E Enrolment in Multi-Faculty Colleges	82
IV Report on Degrees, Diplomas and Certificates Awarded	83
V Geographical Distribution of Students	88

REPORT OF THE EXECUTIVE VICE-PRESIDENT (NON-ACADEMIC)	89
---	----

AUDITOR'S REPORT	96
------------------	----

NOTES TO FINANCIAL STATEMENTS FOR YEAR ENDED 30 JUNE 1968	97
---	----



President's Report: Part Three

I. UNIVERSITY OF TORONTO, BENEFACTIONS
BY TYPE OF DONOR, FOR YEAR ENDED 30 JUNE 1968

	Federal Government	Provincial Government	Municipal Government	Associations and Foundations	
				Business	Other
<i>Scholarships, Fellowships, Prizes</i>					
Endowment Funds				\$214.87	\$1,462.00
Expendable Funds	\$25,365.00	\$112.19		68,080.16	67,969.33
<i>Bursaries</i>					
Endowment Funds				100.00	
Expendable Funds		10,000.00		16,200.00	41,000.75
<i>Loan Funds</i>					
Endowment Funds					
Expendable Funds					1,145.75
<i>Composite Funds</i>					
Endowment Funds					
Expendable Funds				5,380.00	
<i>Lectureships</i>					
Endowment Funds					2,000.00
Expendable Funds					500.00
<i>Departmental Funds</i>					
Endowment Funds				16,850.00	
Expendable Funds	41,330.00	(32,033.95)		131,222.50	100,151.10
<i>Research Funds</i>					
Endowment Funds					
Expendable Funds	9,515,273.13) 559,636.04)	633,647.40		334,649.44	1,813,523.17
<i>Miscellaneous Funds</i>					
Endowment Funds					
Expendable Funds	10,000.00	1,000.00		19,000.00	8,000.00
<i>Building Funds</i>					
Endowment Funds					
Expendable Funds	113,214.00	6,820,620.00	\$240,000.00		
TOTAL: Endowment Funds				\$17,164.87	\$3,462.00
TOTAL: Expendable Funds	\$10,264,818.17	\$7,433,345.64	\$240,000.00	\$574,532.10	\$2,032,291.10

Business	Individuals and Bequests	Joint Funds	Other	TOTALS	
				Endowment Funds	Expendable Funds
\$1,250.00	\$67,451.63		\$2,000.00	\$72,378.50	
201,030.92	58,820.97		19,412.58		\$440,791.15
	5,117.00			5,217.00	
17,564.00	33,762.75		16,150.00		134,677.50
	692.75				1,838.50
	1,587.51			1,587.51	
1,100.00	60,650.00				67,130.00
	142,259.62		100.00	144,359.62	
					500.00
18,250.00	150,814.62		3,405.00	189,319.62	
20,534.06	140,831.68	\$194,539.56	47,633.61		644,208.56
	218,177.34			218,177.34	
276,792.96	227,339.39		651,460.13		14,012,321.66
	3,189.47			3,189.47	
2,017.97	120,082.94		26,064.36		186,165.27
		51,300.00			7,225,134.00
\$ 19,500.00	\$588,597.19		\$ 5,505.00	\$634,229.06	
\$519,039.91	\$642,180.48	\$245,839.56	\$760,720.68		\$22,712,766.64
TOTAL: Benefactions				\$23,346,995.70	

**II. UNIVERSITY OF TORONTO, BENEFACCTIONS
BY TYPE OF FUND AND FACULTY, ETC., FOR YEAR ENDED 30 JUNE 1968**

	Scholarships, Fellowships, Prizes	Bursaries	Loan Funds	Composite Funds	Lectureships	Departmental Funds	Research Funds	TOTALS
<i>Faculty of Arts and Science</i>								
Endowment Funds	\$15,071.68	\$ 100.00		\$ 205.63	\$142,109.62	\$15,784.93	\$3,789,105.02	\$ 142,415.25
Expendable Funds		1,492.66		25,400.00				3,846,854.29
<i>Faculty of Arts, University College</i>								
Endowment Funds	12,258.87					4,265.70		16,524.57
Expendable Funds	21,592.28	25,708.00	\$138.00		500.00	3,907.96		51,846.24
<i>Faculty of Applied Science and Engineering</i>								
Endowment Funds	30,463.65					32,495.00		62,958.65
Expendable Funds	25,072.50	14,800.00				62,638.96	2,360,664.71	2,463,176.17
<i>Faculty of Architecture</i>								
Endowment Funds	5,450.00					22,000.00		27,450.00
Expendable Funds								
<i>School of Business</i>								
Endowment Funds								
Expendable Funds			250.00				45,484.35	45,734.35
<i>Institute of Child Study</i>								
Endowment Funds						125.00		125.00
Expendable Funds							194,586.81	194,711.81
<i>Faculty of Dentistry</i>								
Endowment Funds	3,938.01							3,938.01
Expendable Funds	2,250.00	1,900.00				1,840.00	152,513.06	158,503.06
<i>Faculty of Food Sciences</i>								
Endowment Funds								
Expendable Funds	1,833.37						47,598.03	49,431.40
<i>Faculty of Forestry</i>								
Endowment Funds								
Expendable Funds	2,545.48					12,708.37	38,743.84	53,992.69
<i>School of Graduate Studies</i>								
Endowment Funds	15,815.00							15,815.00
Expendable Funds	201,078.38							201,078.38
<i>School of Hygiene</i>								
Endowment Funds								
Expendable Funds	2,750.00		150.00			6,000.00	617,493.46	626,393.46

II. BENEFACTIONS BY TYPE OF FUND AND FACULTY, etc. (Continued)

	Scholarships, Fellowships, Prizes	Bursaries	Loan Funds	Composite Funds	Lectureships	Departmental Funds	Research Funds	TOTALS
<i>Faculty of Law</i>								
Endowment Funds	750.00	..	..	..	..	..	..	750.00
Expendable Funds	1,744.70	1,402.50	..	..	625.00	20,277.00	..	24,049.20
<i>School of Library Science</i>								
Endowment Funds	64.52	..	..	..	..	..	..	64.52
Expendable Funds	810.00	150.00	..	..	..	2,952.00	..	3,912.00
<i>Faculty of Medicine</i>								
Endowment Funds	35.00	..	..	..	2,250.00	37,800.00	218,777.34	258,262.34
Expendable Funds	27,072.58	4,137.25	1,145.75	..	..	114,535.13	4,736,743.51	4,883,634.22
<i>Faculty of Music</i>								
Endowment Funds	1,320.05	..	..	..	..	..	..	1,320.05
Expendable Funds	3,200.00	150.00	..	..	..	11,247.88	..	14,597.88
<i>School of Nursing</i>								
Endowment Funds	..	..	..	..	..	..	..	..
Expendable Funds	2,565.00	4,286.00	..	..	..	37,800.00	..	44,651.00
<i>Faculty of Pharmacy</i>								
Endowment Funds	..	..	..	..	..	5.00	..	5.00
Expendable Funds	8,733.30	2,800.00	..	..	..	52,075.00	95,829.00	159,437.30
<i>School of Physical Health and Education</i>								
Endowment Funds	..	..	..	..	..	..	..	..
Expendable Funds	2,850.00	400.00	..	..	..	..	..	3,250.00
<i>School of Social Work</i>								
Endowment Funds	..	117.00	..	..	..	..	..	117.00
Expendable Funds	600.00	20,525.00	..	..	..	..	146,282.34	167,407.34
<i>Division of University Extension</i>								
Endowment Funds	..	..	..	..	..	..	..	..
Expendable Funds	..	4,200.00	..	..	..	6,250.00	..	10,450.00
<i>University Library</i>								
Endowment Funds	..	..	..	..	..	..	..	..
Expendable Funds	..	..	..	..	..	76,621.41(Dr)	40,500.65	(36,120.76)
<i>Ontario College of Education</i>								
Endowment Funds	..	..	..	..	..	..	..	..
Expendable Funds	1,000.00	700.00	..	..	..	..	..	1,700.00

II. BENEFACTIIONS BY TYPE OF FUND AND FACULTY, etc. (Continued)

	Scholarships, Fellowships, Prizes	Bursaries	Loan Funds	Composite Funds	Lectureships	Departmental Funds	Research Funds	TOTALS
<i>Banling and Best Department of Medical Research</i>								
Endowment Funds
Expendable Funds	38,608.91	365,724.63	404,333.54
<i>Institute of Computer Science</i>								
Endowment Funds
Expendable Funds	314,089.00	314,089.00
<i>Centre for Criminology</i>								
Endowment Funds
Expendable Funds	174,376.48	174,376.48
<i>Centre for Culture and Technology</i>								
Endowment Funds
Expendable Funds
<i>Institute of Earth Sciences</i>								
Endowment Funds
Expendable Funds	112,692.51	112,692.51
<i>Centre for Medieval Studies</i>								
Endowment Funds
Expendable Funds
<i>Centre for Russian and East European Studies</i>								
Endowment Funds
Expendable Funds	1,000.00	16,000.00	17,000.00
<i>Centre for Industrial Relations</i>								
Endowment Funds
Expendable Funds	..	647.00	..	..	..	..	2,400.00	3,047.00
<i>Centre for Linguistic Studies</i>								
Endowment Funds
Expendable Funds
<i>Centre for Urban Studies</i>								
Endowment Funds
Expendable Funds	61,514.57	61,514.57
<i>Institute for Quantitative Analysis</i>								
Endowment Funds
Expendable Funds	44,184.32	44,184.32

II. BENEFACCTIONS BY TYPE OF FUND AND FACULTY, etc. (Concluded)

	Scholarships, Fellowships, Prizes	Bursaries	Loan Funds	Composite Funds	Lectureships	Departmental Funds	Research Funds	TOTALS
<i>Centre for Study of the Drama</i>								
Endowment Funds	..	..	..	..	..	235.70	..	..
Expendable Funds	..	..	..	..	..	4,000.00	..	4,235.70
<i>Composite Colleges</i>								
Endowment Funds	2,000.00	..	..	..	..	..	..	2,000.00
Expendable Funds	5,320.00	3,650.00	..	..	..	2,846.60	..	11,816.60
<i>Royal Ontario Museum</i>								
Endowment Funds	..	..	..	..	..	114,703.92	..	114,703.92
Expendable Funds	..	..	..	..	..	131,936.45	75,282.22	207,218.67
<i>Great Lakes Institute</i>								
Endowment Funds	..	..	..	..	..	..	..	..
Expendable Funds	..	..	..	..	..	..	252,468.03	252,468.03
<i>General University</i>								
Endowment Funds	733.40	5,000.00	..	1,381.88	..	50.00	..	7,165.28
Expendable Funds	72,993.68	47,129.09	154.75	41,730.00	..	198,669.08	277,027.13	637,703.73
<i>Composite Awards</i>								
Endowment Funds	..	..	..	..	..	..	..	..
Expendable Funds	29,850.57	600.00	..	..	..	..	..	30,450.57
<i>University of Toronto Schools</i>								
Endowment Funds	5,000.00	..	..	..	..	..	..	5,000.00
Expendable Funds	6,307.63	..	..	..	..	..	..	6,307.63
TOTAL								
Endowment Funds	\$ 72,378.50	\$ 5,217.00	..	\$ 1,587.51	\$ 144,359.62	\$ 189,319.62	\$ 218,177.34	\$ 631,039.59
Expendable Funds	\$440,791.15	\$134,677.50	\$1,838.50	\$67,130.00	\$ 500.00	\$644,208.56	\$14,012,321.66	\$15,301,467.37
<i>Miscellaneous Funds</i>								
Endowment Funds	..	..	..	..	..	..	..	\$ 3,189.47
Expendable Funds	..	..	..	..	..	..	..	\$ 186,165.27
<i>Building Funds</i>								
Expendable Funds	..	..	..	..	..	..	..	\$ 7,225,134.00
TOTAL: Endowment Funds								
TOTAL: Expendable Funds								
TOTAL: Benefactions								
								\$ 634,229.06
								\$22,712,766.64
								\$23,346,995.70

III. UNIVERSITY OF TORONTO, BENEFACTIONS YEAR ENDED 30 JUNE 1968

Name of Fund	Donor	Endowment Funds	Expendable Funds
SCHOLARSHIPS, FELLOWSHIPS AND PRIZES			
<i>Faculty of Applied Science and Engineering</i>			
American Institute of Industrial Engineers' Scholarship	American Institute of Industrial Engineers, Southern Ontario Chapter	\$ 150.00	
American Society of Heating, Refrigerating and Air-Conditioning Engineers Prize	American Society of Heating, Refrigerating and Air-Conditioning Engineers (Ontario Chapter)	75.00	
American Society of Lubrication Engineers Prize	American Society of Lubrication Engineers, Toronto Section	100.00	
Ardagh Scholarship—Chemical Engineering	Estate of Professor E. G. R. Ardagh	\$ 1,982.72	
Boiler Inspection and Insurance Co. Scholarship	Boiler Inspection and Insurance Co. of Canada	150.00	
Canadian International Air Show Scholarships	Canadian International Air Show Scholarship Fund	5,100.00	
Cyanamid of Canada Scholarship	Cyanamid of Canada Ltd.	900.00	
Roy H. Davis Scholarship Plan	Atlas Steels Limited	387.50	
Dow Chemical Scholarship	Dow Chemicals of Canada Ltd.	750.00	
Electrical Manufacturing Co. Ltd. Prize	Electrical Manufacturing Co. Ltd.	50.00	
Engineering Alumni Admission Scholarships	Engineering Alumni Association	7,000.00	
James Franceschini Foundation Scholarship	James Franceschini Foundation	1,000.00	
Chester B. Hamilton Scholarship	Members of the Hamilton Family	500.00	
Hawker-Siddeley Limited (Orenda Engines Division) Scholarships	Hawker-Siddeley Canada Ltd.	1,500.00	
Otto Holden Scholarships	Estate of Otto Holden	5,000.00	
Johnson's Wax Scholarships	Estate of Florence Holden	10,000.00	
Kimberly-Clark Corporation of Canada Ltd. Scholarships	S. C. Johnson and Son Ltd.		
Lever Brothers Limited Scholarships	Kimberly-Clark Corporation of Canada Ltd. Lever Brothers Limited	2,400.00	
Marsland Engineering Limited Scholarship	Marsland Engineering Limited	1,200.00	
Lachlan Dales McKellar Scholarship or Bursary	Marsland Engineering Limited	600.00	
Dean McLaughlin Prize in Engineering (Devonshire House)	Estate of Leona D. McKellar	500.00	
Don Salt Scholarship	Various donors	12,500.00	
	Texas Gulf Sulphur Co.	\$750.00	
	J. Patrick Sheridan Foundation	214.87	
	Various donors	16.06	
		\$980.93	
Spruce Falls Power and Paper Co. Ltd. Scholarships	Spruce Falls Power and Paper Co. Ltd.	2,200.00	
Trane Company of Canada Ltd. Prize	Trane Company of Canada Ltd.	250.00	
University of Toronto Chemical Engineering Club Scholarship	University of Toronto Chemical Engineering Club	150.00	
Wallace Award	Society of Automotive Engineers	100.00	
		\$30,463.65	\$25,072.50

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
SCHOLARSHIPS, FELLOWSHIPS AND PRIZES (Continued)			
<i>Faculty of Architecture</i>			
American Standard Products (Canada) Ltd. Scholarship	American Standard Products (Canada) Ltd.		\$ 1,000.00
Anaconda American Brass Ltd. Prizes	Anaconda American Brass Ltd.		300.00
Frances Blue Scholarships	Mrs. Frances Blue		500.00
Booth Brick Limited Scholarship	Booth Brick Limited		400.00
Canadian Pittsburgh Industries Ltd. Scholarships	Canadian Pittsburgh Industries Ltd.		250.00
Forrnica Travelling Scholarship	Cyanamid of Canada Ltd.		1,000.00
Robert Grimson Metro Blueprint Essay Prizes	Metro Blueprint Company		400.00
Ontario Association of Architects Scholarships	Ontario Association of Architects		300.00
Primeau Argo Block Company Ltd. Scholarship	Primeau Argo Block Company Ltd.		200.00
Special Scholarship in Architecture	B. G. Ludlow and Partners	\$300.00	
	Raymond Moriyama	150.00	
	John Caulfield Smith	150.00	
	James Murray	100.00	
	Toronto Brick Co. Ltd.		700.00
			400.00
			\$ 5,450.00
<i>Faculty of Arts and Science</i>			
Canadian Literature Prize	Anonymous Donor		\$ 25.00
Clarkson Prizes in Accounting	Clarkson Gordon and Co. Ltd.		1,550.00
Class of 1930 Mathematics and Physics Award	Various Donors		500.00
Douglas Ross Clear Memorial Award	Mr. and Mrs. Douglas Alan Clear		250.00
F. H. Deacon and Co. Scholarship - Political Economy	F. H. Deacon and Co.		250.00
Roger E. Deane Memorial Prize	Mr. Gordon Hough	\$ 50.00	
	Various Donors	10.00	
			60.00
de Marbois Scholarship - East Asian History	Mr. Gordon R. Taylor		150.00
Dr. J. R. Dymond Memorial Fund	Mr. Daniel Cucin	\$100.00	
	Dr. W. E. Ricker	100.00	
	Mrs. W. J. Harkness	50.00	
	Mr. R. R. Langford	50.00	
	Various Donors	440.96	
			740.96
Fred Gardiner Scholarships in Political Economy	Board of Trade of Metropolitan Toronto		1,200.00
Gilbey Centennial Scholarship	W. & A. Gilbey (Canada) Ltd.		2,000.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
SCHOLARSHIPS, FELLOWSHIPS AND PRIZES (Continued)			
Gill Interprovincial Lines Ltd. Scholarship	Gill Interprovincial Lines Ltd. and Southern Freightways Corporation Ltd.		\$ 250.00
Honour Spanish Prize	Anonymous Donor		100.00
I.B.M. Thomas J. Watson Memorial Scholarship	International Business Machines Co. Ltd.		4,500.00
Mary Keenan Award in Political Science	Anonymous Donor		200.00
George Kennedy Award	Estate of Dr. George Kennedy		133.37
John Davidson Ketchum Memorial Scholarship	Mrs. John Davidson Ketchum		500.00
Paul McGillicuddy Memorial Medal in Sociology	Anonymous Donor		166.70
O'Keefe Award - Commerce and Finance	O'Keefe Foundation		500.00
Order of the Sons of Italy of Ontario Prizes	Order of the Sons of Italy of Ontario	\$50.00	
William Palca Memorial Scholarship	Mrs. Helen Palca	50.00	
	Mr. Jack Palca		
Laila C. Scott Memorial Scholarship	University Women's Club of Toronto	100.00	
Toronto Stock Exchange Prize	Toronto Stock Exchange	800.00	
University Women's Club of Toronto Scholarship	University Women's Club of Toronto	200.00	
Zonta Club of Toronto Award	Zonta Club of Toronto	400.00	
		245.65	
			\$15,071.68
<i>Faculty of Arts, University College</i>			
Alpha Chi Omega Fraternity, Prize	Alpha Chi Omega Fraternity, Psi Psi Chapter		\$ 50.00
Charles L. Burton Trust	Mr. Charles L. Burton		2,910.00
Arthur Caplan Scholarship	Mr. Arthur Caplan		350.00
Alfreda Cole Memorial Prize	Professor David Hayne		25.00
Bessie Griffith Cosens Scholarship	Mr. G. G. Cosens		
Oakley Dalglish Memorial Scholarships	The Globe and Mail	\$ 500.00	
Dr. W. J. Dunlop Scholarship	Association of Administrative Assistants or Private Secretaries		1,000.00
W. G. Frisby Scholarship	Association of Administrative Assistants or Private Secretaries		100.00
James Harris Matriculation Scholarships	James Harris Foundation		100.00
Percy Hermant Scholarships	Percy Hermant Foundation		1,000.00
Mary Q. Innis Scholarship	U.C. Literary and Athletic Society		700.00
R. W. Leonard Scholarships	Estate of Col. R. W. Leonard		100.00
W. J. McAndrew Scholarship	U.C. Literary and Athletic Society		4,000.00
Evelyn McDonald Scholarship	Estate of Evelyn McDonald		100.00
			1,590.59

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
SCHOLARSHIPS, FELLOWSHIPS AND PRIZES (Continued)			
T. J. Meek Prize	Estate of Professor T. J. Meek Mr. and Mrs. Harold Dessen	\$200.00 5.00	\$ 205.00 6,631.69
W. C. Michell Scholarships and Bursaries	Estate of W. C. Michell		300.00
Perlmutter, Orenstein, Giddens, Newman & Kofman Scholarship	Perlmutter, Orenstein, Giddens, Newman & Kofman	15.00	1,080.00
Joseph Schwartz Scholarship	Mr. Alex Solway		1,000.00
Simpson's Ltd. and Simpsons-Sears Ltd. Scholarships	Simpson's Ltd. and Simpsons-Sears Ltd.		250.00
W. R. Taylor Memorial Fund	Mr. Ronald F. Rogers		
University College Alumnae Scholarships	University College Alumnae Association		
Marion Whyte Residence Award	University College Alumnae Association		
Arthur S. P. Woodhouse Estate	Estate of Arthur S. P. Woodhouse	11,743.87	
		<u>\$12,258.87</u>	<u>\$21,592.28</u>
<i>Faculty of Dentistry</i>			
Academy of Dentistry Prize	Academy of Dentistry, Toronto		\$ 100.00
Andree Hebert Brunelle Scholarship	Ontario Dental Hygienists Association		100.00
Dental Alumni Association Admission Scholarships	Dental Alumni Association		500.00
William J. Evon Scholarship	Various Donors	\$2,476.01	100.00
Dr. L. J. Fenech Prize in Endodontia	Dr. L. J. Fenech		100.00
Joseph Harker Johnson Scholarship	Members of the Graduating Class of 5T1 Dentistry	1,462.00	50.00
Frank Martin Award	Crown and Bridge Study Club		100.00
Sandra Mather Memorial Scholarship	Ontario Dental Hygienists Association		50.00
Dr. John Earl Moser Memorial Prize	Toronto Radiodontia Study Club		50.00
Prosthodontia 2nd Year Prize	Dr. R. L. Twible		200.00
Royal College of Dental Surgeons Centennial Admission Scholarship	Royal College of Dental Surgeons of Ontario		600.00
Royal College of Dental Surgeons Admission Scholarship	Royal College of Dental Surgeons of Ontario		300.00
James Branston Willmott Scholarships	Royal College of Dental Surgeons of Ontario		
		<u>\$3,938.01</u>	<u>\$2,250.00</u>
<i>Faculty of Food Sciences</i>			
Clara C. Benson Prize	Household Science Alumnae Association		\$ 50.00
Borden Company Ltd. Awards	Borden Company Ltd.		200.00
Consumers' Gas Company Scholarship	Consumers' Gas Co.		400.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
SCHOLARSHIPS, FELLOWSHIPS AND PRIZES (Continued)			
Household Science Alumnae Association Scholarships	Household Science Alumnae Association		\$ 500.00
Sarah Kennedy Scholarship	Estate of Dr. George Kennedy		133.37
Annie L. Laird Prize	Household Science Alumnae Association		100.00
Russell Food Equipment Ltd. Scholarship	Russell Food Equipment Ltd.		350.00
Toronto Home Economics Scholarship	Toronto Home Economics Association		200.00
			<hr/>
			\$1,933.37
Faculty of Forestry			
Forestry Alumni Admission Scholarship	Forestry Alumni Association		\$ 45.48
F. K. Morrow Scholarship	F. K. Morrow Foundation		250.00
Osmose Wood Preserving Scholarship	Osmose Wood Preserving Co. of Canada Ltd.		350.00
Spruce Falls Power & Paper Co. Ltd. Scholarships	Spruce Falls Power & Paper Co. Ltd.		1,800.00
White Pine Bureau Scholarship	White Pine Bureau, Canadian Lumbermen's Association		100.00
			<hr/>
			\$2,545.48
School of Graduate Studies			
Aluminum Co. of Canada Ltd. Scholarship	Aluminum Co. of Canada Ltd.		\$ 6,956.00
Bell Canada Centennial Fellowship	Association of Universities and Colleges of Canada		5,000.00
British American Oil Co. Ltd. Fellowships	British American Oil Co. Ltd.		13,500.00
E. F. Burton Fellowship in Physics	Mr. C. L. Burton		2,910.00
C.I.L. Fellowship in Chemistry and Chemical Engineering	Canadian Industries Ltd.		4,800.00
C.I.L. Wild Life Conservation Plan Summer Fellowship	Canadian Industries Ltd.		2,500.00
Canadian Kodak Fellowship	Canadian Kodak Co. Ltd.		3,565.00
Canadian National Sportsmen's Show Fellowship	Canadian National Sportsmen's Show		2,500.00
Chevron Standard Fellowship	Chevron Standard Ltd.		1,500.00
Dafoe Foundation Post-Graduate Award	J. W. Dafoe Foundation		2,500.00
Dow Corning Silicones Ltd. Fellowship	Dow Corning Silicones Ltd.		3,000.00
Nellie Farthing Graduate Fellowship	Estate of Nellie L. Farthing		1,547.89
Fitzgerald Memorial Fellowship	Connaught Medical Research Laboratories		6,666.67
Margaret and Nicholas Fodor Fellowship	Margaret and Nicholas Fodor	\$10,000.00	1,000.00
Ford Foundation Fellowships	Ford Motor Co. of Canada Ltd.		5,155.00
Roscoe Reid Graham Travelling Fellowship in Surgery	Mrs. R. R. Graham		2,921.06
Walter Helm Fellowship in Astronomy	Estate of Walter Helm		
Frank S. Hogg Memorial Scholarship	Mrs. Helen Hogg		\$300.00
	Mr. Ronald F. Rodgers		15.00
			<hr/>
			315.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
SCHOLARSHIPS, FELLOWSHIPS AND PRIZES (Continued)			
Inco Graduate Research Fellowship	International Nickel Co. of Canada Ltd.		\$ 3,500.00
Inco Canadian-American Relations Fellowships	International Nickel Co. of Canada Ltd.		7,000.00
John Kellermann Memorial Fellowship	G. W. Crothers (1965) Ltd.	\$ 500.00	
Kimberly-Clark Corporation of Canada Ltd. Fellowship	Kimberly-Clark Corporation of Canada Ltd.		2,000.00
R. W. Leonard Fellowship (University College)	Estate of Colonel R. W. Leonard		1,550.00
R. W. LeSueur Fellowship	Imperial Oil Ltd.		500.00
Litton Systems (Canada) Ltd. Bursary	Litton Systems (Canada) Ltd.	\$200.00	1,000.00
Lorne E. MacLachlan Teacher Training Fund	Dr. Lorne E. MacLachlan		
	Royal College of Dental Surgeons of Ontario	100.00	
Albert G. Milbank Fellowship	Milbank Memorial Fund		300.00
Minister of Health Gold Medal	Province of Ontario, Department of Health		6,660.16
F. K. Morrow Fellowship at C.M.R.L.	Mrs. F. K. Morrow		112.19
Northern Electric Co. Fellowship	Northern Electric Co. Ltd.		8,500.00
Ontario Mental Health Foundation Teacher-Training Fellowships	Ontario Mental Health Foundation		3,000.00
Pfizer Fellowship in Pharmacy	Pfizer Company Ltd.		13,270.00
Professional Marketing Research Society Award	Professional Marketing Research Society		1,000.00
Dr. R. A. Reeve Prize	Estate of Dr. R. A. Reeve		150.00
Public Service Bicultural Program	Government of Canada		50.00
Shell Oil Co. Research Fellowship	Shell Oil Company of Canada Ltd.		6,115.00
Shiffer Hillman Co. Ltd. Fellowship - Business Administration	Shiffer Hillman Co. Ltd.		750.00
Southern Newspapers Fellowships for Journalists	The Southam Company Ltd.		1,000.00
Spruce Falls Power and Paper Co. Ltd. Fellowship	Spruce Falls Power and Paper Co. Ltd.		31,556.45
Stapells Fund for Ophthalmic Research Fellowship	Estate of Mr. H. F. Stapells, Q.C.		1,800.00
M. A. Starkman Memorial Fellowship	Starkman Chemists Ltd.		500.00
Steel Co. of Canada Ltd. Fellowships	Steel Co. of Canada Ltd.		500.00
John Alexander Stewart Fellowship	Estate of Jessie Mabel Stewart	5,000.00	
Toronto Construction Association Industrial Relations Fellowship	Toronto Construction Association		1,000.00
Woodrow Wilson Fellowship Fund	George C. Metcalf Charitable Foundation		3,000.00
James William Woods Fellowship	Woodrow Wilson National Fellowship Foundation		23,677.50
Xerox Graduate Fellowship	Gordon MacKay and Co. Ltd.		500.00
	Xerox of Canada Ltd.		5,300.00
		\$15,815.00	\$201,078.38
<i>School of Hygiene</i>			
G. Harvey Agnew Award	Canadian Liquid Air Co. Ltd.		\$1,000.00

Name of Fund	Donor	Endowment Funds	Expendable Funds
SCHOLARSHIPS, FELLOWSHIPS AND PRIZES (Continued)			
Frank W. Horner Gold Medal	Frank W. Horner Ltd.	\$ 6,650.00	
Meds 214 Scholarship Fund	Dr. Margaret DuBois	100.00	
John Oille Scholarship	R. S. McLaughlin Foundation	\$35.00	
Ontario Heart Foundation Summer Student Scholarships	Ontario Heart Foundation	16,120.00	
Ontario Medical Association Prize	Ontario Medical Association	2,400.00	
Posluns Bros. Scholarship	Posluns Bros.	100.00	
Ronald S. Saddington Medal	Lambda Chi Alpha Fraternity	100.00	
Sandoz Prize in Pharmacology	Sandoz (Canada) Ltd.	92.58	
Starkman Memorial Scholarships	Starkman Chemists Ltd.	60.00	
		450.00	
		<u>\$35.00</u>	<u>\$27,072.58</u>
<i>Faculty of Music</i>			
Boosey and Hawkes (Canada) Ltd. Scholarship	Boosey and Hawkes (Canada) Ltd.	\$ 100.00	
Mary Oster Boyd Award	Women's Musical Club of Toronto	300.00	

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
SCHOLARSHIPS, FELLOWSHIPS AND PRIZES (Continued)			
Jean A. Chalmers Award	Mrs. Jean A. Chalmers	\$ 50.00	\$ 500.00
George Couitts Memorial Scholarship	Mrs. Elizabeth Gallimore		
Eaton Graduating Scholarship in Music	The Eaton Foundation		1,000.00
Famous Players Canadian Corporation Scholarship	Famous Players Canadian Corporation		300.00
J. M. Greene Music Company Scholarship	J. M. Greene Music Company Ltd.		200.00
Leslie John Hodgson Memorial Scholarship	Estate of Minnie C. Hodgson	1,195.05	
I.O.D.E. Provincial Chapter of Ontario Scholarship	I.O.D.E. Provincial Chapter of Ontario	75.00	600.00
John Moskalyk Memorial Prize	Mr. Joseph Peiluck		
Waterloo Music Company Ltd. Scholarship	Waterloo Music Company Ltd.		200.00
		<u>\$1,320.05</u>	<u>\$3,200.00</u>
<i>School of Nursing</i>			
Florence Emory Scholarships	Honorable M. Wallace McCutcheon		\$2,100.00
Dorothy Percy Scholarship	Various Donors		165.00
Louis and Rose Revitch Scholarship	Mr. and Mrs. Louis Revitch		300.00
			<u>\$2,565.00</u>
<i>Ontario College of Education</i>			
Polymer Scholarship	Polymer Corporation Ltd.		\$1,000.00
			<u>\$1,000.00</u>
<i>Faculty of Pharmacy</i>			
E. E. Binder Memorial Prize	Mrs. Lois Binder		\$ 50.00
Burroughs Wellcome & Co. (Canada) Ltd. Scholarship	Burroughs Wellcome & Co. (Canada) Ltd.		250.00
Charles E. Frossit Scholarship	Charles E. Frossit and Company		250.00
Fulford Dodds Ltd. Scholarship	Fulford Dodds Ltd.		400.00
Hoffmann-LaRoche Canadian Centennial Scholarship	Hoffmann-LaRoche Ltd.		500.00
John A. Huston Co. Ltd. Scholarship	John A. Huston Co. Ltd.		250.00
Kent Drugs Ltd. Scholarships	Kent Drugs Ltd.		500.00
Lord's Pharmacy Scholarships	Harbord Pharmacy Ltd.		1,000.00
E. A. Lovell Scholarship	Family of the late E. A. Lovell, Phm.B.		500.00
Merck, Sharp and Dohme Awards	Merck, Sharp and Dohme of Canada Ltd.		50.00
Ed Mirvish Centennial Scholarship	Honest Ed's Pharmacy Ltd.		550.00
Noxzema-J. Marvin Shaw Scholarship	Noxzema Chemical Company of Canada Ltd.		513.30

III. BENEFACCTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
SCHOLARSHIPS, FELLOWSHIPS AND PRIZES (Continued)			
Pharmacy Foundation Scholarships Poulenc Award	Canadian Foundation for the Advancement of Pharmacy Poulenc Ltd.		\$ 700.00 250.00
Rokeah Chapter of Rho Pi Phi International Pharmaceutical Centennial Scholarships - Special	Rokeah Chapter, Rho Pi Phi Fraternity		1,000.00
Undergraduate Pharmaceutical Society Award	Undergraduate Pharmaceutical Society		100.00
Upjohn Company of Canada Scholarship	Upjohn Company of Canada		400.00
War Memorial Scholarships	Ontario College of Pharmacy		1,470.00
			<u>\$8,733.30</u>
<i>School of Physical and Health Education</i> Margaret Eaton Scholarships	The Eaton Foundation		<u>\$2,850.00</u>
			<u>\$2,850.00</u>
<i>School of Social Work</i> National Council of Jewish Women Scholarship	National Council of Jewish Women of Canada, Toronto Section		\$300.00
School of Social Work Alumni Scholarship	Social Work Alumni Association		300.00
			<u>\$600.00</u>
<i>University of Toronto Schools</i> Barry Lorne Ardiel Memorial Award	Mr. R. E. Ardiel		\$ 100.00
Sir Winston Churchill Medals	Mr. H. R. Jackman, Q.C.	\$2,000.00	
Sir John C. Eaton Memorial Scholarships	The Eaton Foundation		600.00
Mr. and Mrs. Nicholas Fodor Gift	Mr. Nicholas Fodor	\$1,000.00	
	Mrs. Margaret Fodor	1,000.00	
			<u>2,000.00</u>
Donald J. Jeffrey Memorial Scholarship	Mrs. Elsie Kennedy		500.00
W. J. Loughheed Prize in Upper School Mathematics	Dr. Arthur Brant		53.81
Beverley Matthews Trust Fund	Mr. Beverley Matthews, Q.C.	3,000.00	
George Warwick Noble Award	Mrs. Olive C. Noble		50.00
A. M. Scarrow Memorial Prizes	Mrs. K. B. Clysdale		50.00
U.T.S. Engineering Scholarship	Mr. John D. Bryce		250.00
U.T.S. Old Boys' 50th Anniversary Fund Scholarship	U.T.S. Old Boys' Association		450.00
U.T.S. Old Boys' Association Scholarships	U.T.S. Old Boys' Association		600.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
SCHOLARSHIPS, FELLOWSHIPS AND PRIZES (Continued)			
U.T.S. Old Boys' Engineering Scholarship	U.T.S. Old Boys' Association		\$ 100.00
U.T.S. Old Boys' War Memorial Scholarships	U.T.S. Old Boys' Association		600.00
U.T.S. Parents' Association Scholarship Grade VII	U.T.S. Parents' Association		300.00
U.T.S. Parents' Association Scholarships	U.T.S. Parents' Association		600.00
J. G. Workman Prize in Middle School Mathematics	Dr. Arthur Brant		53.82
		\$5,000.00	\$6,307.63
<i>Composite Colleges</i>			
Innis College:			
Acadia Award	Acadia Insurance Co.		\$1,000.00
New College:			
New College Student Council Centennial Award	New College Student Council	\$2,000.00	
	Mr. W. J. Dowkes	\$ 100.00	
		200.00	
Stewart Wilson Award	Engineering Alumni Association		300.00
Scarborough College:			820.00
Landon Bladen Admission Award	Dean and Mrs. V. W. Bladen		300.00
Scarborough College Foster Alumni Scholarships	Scarborough College Foster Alumni Association	\$2,400.00	
	Township of Pickering	500.00	
			2,900.00
		\$2,000.00	\$5,320.00
<i>General University</i>			
Douglas M. Burgess Memorial Scholarship	Mrs. Ella Burgess and other members of the Family		\$ 275.00
Geoffrey P. E. Clarkson Scholarship	Professor Geoffrey P. E. Clarkson		400.00
Commonwealth Scholarships	Government of Canada, Department of External Aid		19,250.00
Carle C. Conway Scholarship	Carle C. Conway Scholarship Foundation, Continental Can Co. Ltd.		1,800.00
Devonshire House Prize Fund	Various Donors	\$30.00	
Finnish Students Exchange	Various Donors - Varsity Fund Special Appeal		1,880.00
General Foods Scholarship	General Foods Ltd.		1,750.00
General Motors Canadian College Scholarships	General Motors of Canada Ltd.		17,668.00
Inco Scholarships	International Nickel Co. of Canada Ltd.		16,737.00
John Labatt Limited Scholarship	John Labatt Limited		500.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
BURSARIES (Continued)			
Canadian Bechtel Ltd. Bursary Fund	Canadian Bechtel Ltd.		\$ 1,200.00
Dominion Magnesium Ltd. Bursary	Dominion Magnesium Ltd.		400.00
Engineering Alumni Association Bursaries	Engineering Alumni Association		8,500.00
			<u>\$14,800.00</u>
<i>Faculty of Arts and Science</i>			
Beamish Bursaries	Professor F. E. Beamish		\$ 311.66
Institute of Internal Auditors Bursary	Institute of Internal Auditors		100.00
Ontario Federation of Labour Bursary	Ontario Federation of Labour - C.L.C.		250.00
R. G. Riddell Bursary Fund	Maurice Pollock Foundation	\$100.00	
Edwin Sandler Memorial Bursary	Mr. and Mrs. Benjamin Ulster		200.00
Peter White Memorial Bursary	Texas Gulf Sulphur Co.		631.00
		<u>\$100.00</u>	<u>\$1,492.66</u>
<i>Faculty of Arts, University College</i>			
F. R. Jeffrey Bursary	Public Speaking Association		\$ 50.00
Life Underwriters of Toronto Bursary	Life Underwriters of Toronto		300.00
Allan Marshall Memorial Bursary	Professor R. M. H. Shepherd		1.50
Professor and Mrs. T. J. Meek Bursaries	Estate of Professor T. J. Meek		8,900.00
Edmund Peachey Bursary	Mr. Edmund Peachey		300.00
Sadowski Bursary	Mr. Ben Sadowski		250.00
Sara Lillian Smith Memorial Bursary	Professor R. M. H. Shepherd		1.50
U.C. Alumni Association Scholarship and Bursary Fund	U.C. Alumni Association	\$14,375.00	
	Mr. and Mrs. G. D. Thompson	100.00	
		<u>\$ 1,400.00</u>	<u>14,475.00</u>
	U.C. Alumnae Association		
	Miss Rose Veighey	30.00	
			<u>1,430.00</u>
			<u>\$25,708.00</u>
<i>Faculty of Dentistry</i>			
C. A. Corrigan Bursary Fund	Estate of Dr. C. A. Corrigan		\$1,000.00
Dental Alumni Educational Fund Bursary	Dental Alumni Association		400.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
BURSARIES (Continued)			
Ontario Dental Association Bursaries	Ontario Dental Association		\$ 500.00
			<u>\$1,900.00</u>
<i>Centre for Industrial Relations</i> Josephine Grimshaw Memorial Bursary	Miss Isabella E. Fraser Miss Isabel Parks Mrs. Margaret Avison Mrs. P. Morin Various Donors	\$100.00 52.00 50.00 50.00 395.00	
			<u>\$647.00</u>
			<u>\$647.00</u>
<i>Faculty of Law</i> Law Society Foundation Bursaries	Law Society Foundation		\$ 1,402.50
			<u>\$ 1,402.50</u>
<i>School of Library Science</i> Anne Hume Bursary	Zonta Club of Windsor		\$150.00
			<u>\$150.00</u>
<i>Faculty of Medicine</i> Maimonides Medical Society Bursary Ontario Medical Association Bursary Fund G. Roy Sproat and Katharine Sproat Bursary Fund	Maimonides Medical Society of Ontario Ontario Medical Association Mrs. G. Roy Sproat		\$ 200.00 3,437.25 500.00
			<u>\$4,137.25</u>
<i>Faculty of Music</i> National Council of Jewish Women Bursary	National Council of Jewish Women		\$150.00
			<u>\$150.00</u>

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
BURSARIES (Continued)			
<i>School of Nursing</i>			
James H. Rattray Memorial Bursaries	Trustees of the James H. Rattray Memorial Trust Fund		\$1,000.00
School of Nursing Alumnae Bursaries	Nursing Alumnae Association		3,286.00
			<u>\$4,286.00</u>
<i>Ontario College of Education</i>			
Confederation Life Association Bursary	Confederation Life Association		\$700.00
			<u>\$700.00</u>
<i>Faculty of Pharmacy</i>			
Ladies Auxiliary to Hamilton Pharmacists Bursary	Ladies Auxiliary to Hamilton Pharmacists		\$ 200.00
Ladies Auxiliary to Toronto Pharmacists Bursary	Ladies Auxiliary to Toronto Pharmacists		900.00
Pharmacy Alumni Bursaries	Pharmacy Alumni Association		1,000.00
Rho Pi Phi Bursary	Rho Pi Phi Fraternity, Rokeah Chapter		200.00
United Casualty Agencies Bursaries	United Casualty Agencies Ltd.		500.00
			<u>\$2,800.00</u>
<i>School of Physical and Health Education</i>			
Fruehauf Trailer Co. Bursaries	Fruehauf Trailer Co. of Canada Ltd.		\$400.00
			<u>\$400.00</u>
<i>School of Social Work</i>			
Anonymous Bursaries	Anonymous Donors		\$ 1,500.00
James C. Bayly Bursaries	Mr. James C. Bayly		500.00
Delphian Service Group Bursary	Delphian Service Group of Toronto		100.00
Charles Fine Memorial Bursary	Mr. Walter Lyons		\$100.00
	Various Donors		17.00
			<u>\$117.00</u>
Mae Fleming Memorial Bursary	Miss Ethel Fleming		225.00
Stuart K. Jaffray Memorial Bursary	Anonymous Donor		200.00
Ontario Department of Social and Family Services Bursaries	Province of Ontario, Department of Social and Family Services		10,000.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
BURSARIES (Continued)			
Julia Stewart Bursary Fund United Community Fund Bursaries	Samaritan Club of Toronto United Community Fund of Greater Toronto	\$117.00	\$ 500.00 7,500.00
<i>University Extension</i> Inco Summer Bursaries University Women's Club of Etobicoke Bursaries	International Nickel Co. of Canada Ltd. University Women's Club of Etobicoke		\$20,525.00
<i>Composite Colleges</i> Erindale College: Kinsmen Club of South Peel Centennial Bursary Scarborough College: Scarborough College Foster Alumni Bursaries	Kinsmen Club of South Peel Scarborough College Foster Alumni		\$4,000.00 200.00
<i>General University</i> ATA Trucking Industry Educational Foundation Bursaries Atkinson Charitable Foundation Bursaries Crocker Foundation Bursaries Family Bursary Fund Fireco Admission Bursary Globelite Batteries Ltd. Bursaries Hydro Electric Power Commission of Ontario Bursary I.B.M. Thomas J. Watson Memorial Bursary Fund Metro Toronto Science Fair Bursaries Motor Vehicle Safety Association Bursary Procter and Gamble Student Bursary Fund Steel Co. of Canada Bursaries	ATA Trucking Industry Educational Foundation (Inc.) Atkinson Charitable Foundation Estate of Beatrice Glazier Anonymous Donors Fireco Sales Ltd. Globelite Batteries Ltd. Hydro Electric Power Commission of Ontario International Business Machines Co. Ltd. Metro Toronto Science Fair Motor Vehicle Safety Association Procter and Gamble Co. of Canada Ltd. Steel Co. of Canada	\$5,000.00	\$3,200.00 16,200.00 18,096.09 533.00 500.00 500.00 1,500.00 200.00 300.00 2,100.00 4,000.00
		\$5,000.00	\$47,129.09

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
BURSARIES (Concluded)			
<i>Composite Bursaries</i>			
Bundy Tubing Co. of Canada Ltd. Bursary	Bundy Tubing Co. of Canada Ltd.		\$600.00
			<u>\$600.00</u>
	TOTAL: Bursaries	<u>\$5,217.00</u>	<u>\$134,677.50</u>
LOAN FUNDS			
<i>Faculty of Arts, University College</i>			
Edwin Gowanlock Loan Fund	Various Donors		\$138.00
			<u>\$138.00</u>
<i>School of Business</i>			
School of Business Loan Fund	Mr. William Waters		\$250.00
			<u>\$250.00</u>
<i>School of Hygiene</i>			
Kellogg Foundation Loan Fund	Mr. P. Sangoli		\$150.00
			<u>\$150.00</u>
<i>Faculty of Medicine</i>			
Ontario Medical Association Loan Fund	Ontario Medical Association		\$1,145.75
			<u>\$1,145.75</u>
<i>General University</i>			
Devonshire Loan Fund	Various Donors		\$154.75
			<u>\$154.75</u>
	TOTAL: Loans		<u>\$1,838.50</u>

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
COMPOSITE FUNDS			
<i>Faculty of Arts and Science</i> Samuel Beatty Fund	Professor I. R. Pounder Various Donors	\$100.00 105.63	
Reginald A. Blyth Estate Confederation Life Association Scholarships and Bursaries	Estate of Reginald A. Blyth Confederation Life Association	\$205.63	\$24,300.00 1,100.00
<i>General University</i> Mary H. Beatty Estate John W. Billes Estate Birks Family Foundation Awards Plan	Estate of Mary H. Beatty Estate of John W. Billes Birks Family Foundation	\$1,381.88	\$36,350.00 5,380.00
	TOTAL: Composite Funds	\$1,381.88	\$41,730.00
		\$ 1,587.51	\$67,130.00
LECTURES			
<i>Faculty of Arts and Science</i> Fletcher C. Snider Lecture Fund	Estate of Mrs. A. Pauline Worsley	\$142,109.62	
		\$142,109.62	
<i>Faculty of Arts, University College</i> Alexander Lectures	McLean Foundation		\$500.00
			\$500.00
<i>Faculty of Medicine</i> Walter W. Wright Lectureship in Ophthalmology	Medical Staff Association, Toronto General Hospital Dr. Harry Macrae	\$2,000.00 100.00	

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
LECTURESHPIS (Concluded)			
	University of Toronto Eye Alumni	\$ 100.00	
	Dr. J. Donald Morrin	50.00	
		<u>\$2,250.00</u>	
		<u>\$2,250.00</u>	
	TOTAL: Lectureships	<u>\$144,359.62</u>	<u>\$500.00</u>
DEPARTMENTAL FUNDS			
<i>Faculty of Applied Science and Engineering</i>			
Chemical Engineering Library Fund	Mr. W. J. Dowkes		\$ 50.00
Professor J. Roy Cockburn Estate	Estate of Professor J. Roy Cockburn		9,285.18
Engineering Alumni Association - Dean's Fund	Engineering Alumni Association		1,000.00
William Wallace Estate	Estate of William A. Wallace		52,303.78
Adelaide C. Lash Miller Estate	Estate of Adelaide C. Lash Miller	\$32,495.00	
		<u>\$32,495.00</u>	<u>\$62,638.96</u>
<i>School of Architecture</i>			
Central Mortgage and Housing Corporation Per Capita Grant	Central Mortgage and Housing Corporation		\$22,000.00
			<u>\$22,000.00</u>
<i>Faculty of Arts and Science</i>			
Borden Biography	Mr. Henry Borden, Q.C.		\$ 5,000.00
Geological Sciences Trust Account	Mobil Oil Canada Ltd.		1,000.00
Walter Helm Endowment Fund	Walter Helm Endowment Fund		7,354.39
Leza A. Horne Estate - Art and Archaeology	Estate of Leza A. R. Horne		2,180.54
McLennan Lab Opening Ceremonies	Mr. Ben Sadowski		250.00
			<u>\$15,784.93</u>
<i>Faculty of Arts, University College</i>			
M. H. Barlow Memorial Library Fund	Estate of Marjorie F. Barlow	\$1,000.00	
Bartley Bull Fund	Estate of Bartley Bull	3,265.70	
Canada Council Grant - Conference on Editorial Problems	Canada Council		\$1,800.00
Ontario Government Cultural Exchange Program	Province of Ontario, Department of Education		1,400.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
DEPARTMENTAL FUNDS (Continued)			
University College Alumni-ae Giving Fund Whitney Hall Residence	Various Donors Various Donors Dr. Mary Esson Reid	\$380.00 300.00 <u>680.00</u>	\$ 27.96
		<u>\$4,265.70</u>	<u>\$3,907.96</u>
<i>Banting and Best Department of Medical Research</i> Banting and Best Fund	Banting Research Foundation Insulin Committee Mr. Alfred Cowan, Q.C. Various Donors	\$20,000.00 18,488.91 110.00 10.00 <u>38,608.91</u>	<u>\$38,608.91</u>
		<u>\$38,608.91</u>	
<i>Institute of Child Study</i> Dr. Bernhardt Memorial Library Fund	United Educators Inc. Dr. and Mrs. Arthur G. Smith	\$100.00 25.00 <u>125.00</u>	125.00 <u>\$125.00</u>
<i>Faculty of Dentistry</i> Academy of Dentistry Ladies Auxiliary Fund	Academy of Dentistry Ladies Auxiliary The Plastic Group	\$1,250.00 75.00 <u>\$1,325.00</u>	\$1,325.00
Faculty of Dentistry Teacher Training Fund	Canadian Fund for Dental Education Various Donors	\$500.00 15.00 <u>515.00</u>	515.00 <u>\$1,840.00</u>
<i>Centre for Study of Drama</i> Guest Productions	Toronto Buddhist Church Kisaraty Club	\$135.70 100.00 <u>\$235.70</u>	\$235.70 <u>\$235.70</u>

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
DEPARTMENTAL FUNDS (Continued)			
<i>Faculty of Forestry</i>			
Abitibi Chair of Forest Biology	Abitibi Paper Co. Ltd.		\$10,000.00
G. G. Cosens Travel Fund	Mr. G. G. Cosens		1,000.00
Forestry Display Case	Various Donors		626.81
Weyerhaeuser Co. Grant	Weyerhaeuser Canada Ltd.		1,076.56
			<u>\$12,703.37</u>
<i>School of Hygiene</i>			
Ontario Government Grants (2)	Province of Ontario, Department of Health		\$6,000.00
			<u>\$6,000.00</u>
<i>Faculty of Law</i>			
Wolfe D. Goodman Donation	Mr. Wolfe D. Goodman		\$625.00
			<u>\$625.00</u>
<i>University Library</i>			
Canada Council Grants	Canada Council		\$16,000.00
Ontario Council Grants – Library Resources, Field of Music	Canada Council		1,530.00
College of Physicians and Surgeons – Medical Library	College of Physicians and Surgeons of Ontario		300.00
Friends of the Library Fund	Mrs. W. E. Micklethwaite		\$1,765.04
	Dr. A. E. R. Westman		317.50
	Mrs. C. G. Purkis		50.00
	Various Donors		50.00
			<u>2,182.54</u>
Nicholls Library Fund – French	Mrs. H. V. Nicholls		500.00
Ontario New Universities Library Project	Refund to Province of Ontario, Department of University Affairs		97,133.95 Dr
			<u>\$76,621.41 Dr</u>
<i>Faculty of Medicine</i>			
Cardiovascular Travel Fund	Mr. Gordon Graham		\$ 2,000.00
Faculty of Medicine – Dean's Service and Contingency Fund	Toronto General Hospital III Party Fund		\$1,659.00
	Province of Ontario, Department of Health		300.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
DEPARTMENTAL FUNDS (Continued)			
Mary and Wallace Duncan Fund	American Medical Association Education and Research Foundation	\$ 149.43	\$ 2,108.43
Hanna Memorial Fund	Associates of the University of Toronto Incorporated	\$6,800.00	1,275.00
Hoffmann-LaRoche Ltd. Psychiatry Lecture Fund	Hoffmann-LaRoche Ltd.		350.00
I.O.F. Chair of Ophthalmology	Independent Order of Odd Fellows and Rebekah Lodges	30,000.00	6,000.00
Dr. Alexander E. MacDonald Foundation - Special	Dr. Alexander E. MacDonald	\$13,512.53	
Dr. Alexander E. MacDonald Ophthalmic Library Fund	Mrs. George M. Cameron	100.00	13,612.53
John and Mary Markle Foundation Grants	John and Mary Markle Foundation		12,000.00
Medical Alumni Association Dean's Fund	Medical Alumni Association		2,000.00
Province of Ontario Grant - Rehabilitation Medicine	Province of Ontario, Department of Health		56,400.00
O.C.T.R. Clinics - Post-Graduate Medicine	Ontario Cancer Treatment and Research Foundation		750.00
O.C.T.R. Mammography Training Programme	Ontario Cancer Treatment and Research Foundation		5,000.00
O.C.T.R. Pathology Liaison Account	Ontario Cancer Treatment and Research Foundation		3,000.00
Ontario Medical Association Donations - Pilot Programme	Ontario Medical Association		750.00
Ontario Mental Health Foundation Associateships	Ontario Mental Health Foundation	\$1,612.50	7,201.67
Pharmacology Trust Account	Riker Pharmaceuticals Co. Ltd.	100.00	1,712.50
Posluns Donation - Neurosurgery	Mr. Irving Posluns	\$ 300.00	
	Mr. Jeffrey Posluns	75.00	375.00
Visiting Professorship in Orthopaedic Surgery	Mrs. Elizabeth Kennedy	\$ 500.00	
	Mr. Ian Kennedy	500.00	\$1,000.00
<i>Faculty of Music</i>	Molson's Ltd.	\$1,250.00	
Musical Talent Foundation	Mrs. W. H. Clarke	1,000.00	
	Imperial Oil Ltd.	1,000.00	
	Mr. J. Grant Glassco	500.00	
	Interprovincial Pipe Line Co.	500.00	
		\$37,800.00	\$114,535.13

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
DEPARTMENTAL FUNDS (Continued)			
Stephen Leslie Sniderman Memorial Fund	The Robert Simpson Co. Ltd.	\$500.00	
Violin Purchase Account	Harvey Woods Ltd.	500.00	
Dr. Arnold Walter Trust Account	British American Oil Co.	300.00	
	Canadian Kodak Co.	250.00	
	Ontario Paper Co. Foundation	250.00	
	Royal Trust Co.	100.00	
			\$ 6,150.00
	Mrs. S. Sniderman		300.00
	Flora, Lady Eaton		4,000.00
	Varsity Fund - Special Appeal		797.88
			<u>\$11,247.88</u>
<i>School of Nursing</i> Kellogg Foundation Grant	W. K. Kellogg Foundation		\$37,800.00
			<u>\$37,800.00</u>
<i>Faculty of Pharmacy</i> Faculty of Pharmacy Dean's Fund	Spencer's Pharmacy	\$50.00	
	Mrs. Miriam Hurst	25.00	
			\$ 75.00
R. O. Hurst Library Fund	Rho Pi Phi Ladies Auxiliary		\$5.00
Pharmacy Foundation Commission Account	Canadian Foundation for the Advancement of Pharmacy		
			<u>\$5.00</u>
<i>Centre for Russian and East European Studies</i> Student Exchange Account	Province of Ontario, Department of Health		\$52,000.00
			<u>\$52,075.00</u>
<i>University Extension</i> Toronto Pastoral Training Institute	Archdiocese of Toronto (Roman Catholic) Synod of the Diocese of Toronto (Anglican)	\$2,000.00 2,000.00	\$1,000.00 <u>\$1,000.00</u>

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
DEPARTMENTAL FUNDS (Continued)			
<i>Composite Colleges</i>			
Erindale College:			
Erindale College Library Fund	Victoria University	\$2,000.00	\$6,250.00
Innis College:	Trinity College	250.00	\$6,250.00
Innis College Art Purchase Fund	Dr. A. E. R. Westman		816.00
Innis College Principal's Fund	Varsity Fund - Special Appeal		482.60
New College:	Varsity Fund - Special Appeal		148.00
New College Cerberus Fund	Various Donors		340.00
New College Library Fund	Mr. W. J. Dowkes		50.00
Scarborough College:	Various Donors		10.00
Scarborough College Foster Alumni Fund	University Women's Club of Scarborough		1,000.00
Scarborough Reading Room			\$2,846.60
<i>General University</i>			
Devonshire House Residence Trust Account	Various Donors	\$498.00	558.00
	Professor Russell McNeilly	60.00	
Taylor Statten Memorial Fund	Camp Mazinaw		188,905.37
Varsity Fund Presidential Projects	Various Donors	\$50.00	
Varsity Fund Projects - Operating Accounts:	St. Michael's College		5,000.00
- Centennial Professors Project	Varsity Fund - Special Appeal		205.71
- Hart House Picture Fund	Associates of the University of Toronto Inc.		4,000.00
Varsity Graduate Special Fund		\$50.00	\$198,669.08
<i>Royal Ontario Museum</i>			
Life Membership Fund	Various Donors		\$12,410.00
Menzies Trust Fund	Mr. A. R. Menzies		1,000.00
Purchase Endowment Fund	Mr. R. A. Laidlaw	\$25,000.00	

III. BENEFACTIIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
	Estate of Mary Helen Morton		\$10,000.00
	Laidlaw Foundation		5,000.00
	Estate of Louise Janes		5,000.00
	Mr. T. M. Sterling		3,000.00
	Garfield Weston Charitable Foundation		2,000.00
	East York Board of Education		1,750.00
	Canada Permanent Mortgage Corporation		1,500.00
	Allward & Gouinlock		1,000.00
	Mr. D. S. Anderson		1,025.00
	Atkinson Charitable Foundation		1,000.00
	Bank of Montreal		1,000.00
	Bank of Nova Scotia		1,000.00
	Mrs. G. Fielding Biggar		1,000.00
	Mrs. Barbara Bronfman		1,000.00
	Mr. Dixon Chant		1,000.00
	Dow Chemical of Canada Ltd.		1,000.00
	Wm. Eisenberg and Co.		1,000.00
	M. F. Fehely Arts Ltd.		1,000.00
	Gilbey Canada Ltd.		1,000.00
	Mr. G. C. Gray		1,000.00
	International Business Machines Co. Ltd.		1,000.00
	Litton Systems (Canada) Ltd.		1,000.00
	Dr. Alexander E. MacDonald		1,000.00
	Mr. J. K. MacDonald		1,000.00
	Mr. Neil J. McKinnon		1,000.00
	Mr. Richard G. Meech		1,000.00
	F. K. Morrow Foundation		1,000.00
	Olivetti Underwood Ltd.		1,000.00
	Ontario Steel Products Co. Ltd.		1,000.00
	Rio Algom Mines Ltd.		1,000.00
	Mr. E. M. Saunders		1,000.00
	Mrs. Dorothy Spendlove		1,000.00
	Mr. Clair Stewart		1,000.00
	E. P. Taylor Foundation		1,000.00
	Toronto-Dominion Bank		1,000.00
	Mr. Noah Torno		1,000.00

DEPARTMENTAL FUNDS (Continued)

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
DEPARMENTAL FUNDS (Continued)			
Versafood Services Ltd.			\$1,000.00
Mr. A. G. Walwyn			1,000.00
Mr. Donald Webster			1,000.00
Mr. Martin L. Wills			1,000.00
Mr. Oakah L. Jones			900.00
Mr. J. J. Baker			600.00
Mr. John E. Langdon			600.00
Mr. J. L. McCarthy			600.00
Mrs. Catherine Meighen			600.00
Mr. John Rylkert			600.00
Mrs. Anne C. Wills			600.00
Mr. Peter Swann			575.00
British American Oil Co. Ltd.			500.00
Canadian Kodak Co. Ltd.			500.00
Coca-Cola Ltd.			500.00
Miss Jane Glasco			500.00
Mr. W. B. Harris			500.00
Mr. W. C. Harris			500.00
Imperial Oil Ltd.			500.00
Mrs. Clark Locke			500.00
Mrs. W. P. Wilder			500.00
Mr. W. P. Wilder			500.00
Mr. Murray Bell			300.00
Aurora Public School Board			200.00
Canadian Johns-Manville Co. Ltd.			200.00
Newmarket High School Board			200.00
Miss Jessie Taylor			200.00
Whitby Board of Education			200.00
McLelland & Stewart Ltd.			150.00
Pickering Public School Board			150.00
Canadian Schenley Distillers Ltd.			150.00
Ancaster Township High School Board			100.00
Aurora District High School Board			100.00
Barrie Public School Board			100.00
Mrs. Gerard Brett			100.00
Mr. P. C. Ellard			100.00
Sir Ellsworth Flavelle			100.00
Gestetner (Canada) Ltd.			100.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
DEPARTMENTAL FUNDS (Continued)			
	Grimsby and District School Board	\$100.00	
	Mr. O. L. Jones	100.00	
	Mr. K. M. Kilbourn	100.00	
	Mrs. Jocelyn Macaulay	100.00	
	Mrs. E. B. Meltzer	100.00	
	Mrs. Marjorie D. Morse	100.00	
	The National Club	100.00	
	Miss Winnifred Neidler	100.00	
	Mr. Robert L. Peppall	100.00	
	Philips Electronics Industries Ltd.	100.00	
	Stoney Creek Public School Board	100.00	
	Bowmanville Public School Board	50.00	
	Mr. Donald Bragg	50.00	
	Mr. H. B. Burnham	50.00	
	Canadian Bar Association	50.00	
	Cobourg Collegiate School Board	50.00	
	Mrs. R. L. MacMillan	50.00	
	Pilkington Bros. (Canada) Ltd.	50.00	
	Port Credit Public School Board	50.00	
	Mr. N. E. Sheppard	50.00	
	Mrs. Edgar Stone	50.00	
	Woodstock Board of Education	50.00	
	Public Schools		
	Woodstock Board of Education	50.00	
	Secondary Schools	793.92	
	Various Donors		\$101,293.92
	Laidlaw Foundation	\$23,450.00	
	McLean Foundation	15,000.00	
	Mrs. Edgar Stone	12,316.47	
	Mrs. Sonja Bata	6,000.00	
	Mrs. Dorothy Spendlove	2,000.00	
	Mrs. Norah Harris	1,475.00	
	Estate of John W. McColl	1,000.00	
	Mr. R. G. Meech	1,000.00	
	Mr. John Schorscher	500.00	
	Mr. Harry MacDonald	395.00	
Art and Archaeology: Special Fund			

III. BENEFACTIIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
DEPARTMENTAL FUNDS (Continued)			
	Mrs. Walter Gordon		\$300.00
	Mrs. Noah Torno		250.00
	Mrs. O. D. Vaughan		250.00
	R.O.M. Committee		250.00
	Mr. Duncan Gordon		200.00
	Mr. Roy Frankel		200.00
	Mrs. George Harris		200.00
	Molson's Brewery (Canada) Ltd.		200.00
	Olivetti Underwood Ltd.		150.00
	Mr. T. M. Sterling		150.00
	Mrs. David Meltzer		100.00
	Mr. David Meltzer		100.00
	Mrs. Samuel Zacks		100.00
	Mr. R. E. Holland		50.00
	Mr. Gerhard Kander		50.00
	Sigmund Samuel Foundation		\$65,686.47
Sigmund Samuel Canadiana Fund	Sigmund Samuel Foundation		5,000.00
Samuel Canadiana Endowment	Mrs. Charles S. Band		500.00
Egyptian Wall Painting Fund	Mr. R. A. Laidlaw		300.00
	Metropolitan Trust Co.		200.00
	Dr. W. M. Tovell		200.00
	Mr. Charles P. Fell		200.00
	R.O.M. Committee		150.00
	Mr. T. M. Sterling		150.00
	Mr. Vernon Armstrong		100.00
	Professor and Mrs. G. Bagnani		100.00
	Mr. St. Clair Balfour		100.00
	Dr. Elie Borowski		100.00
	Mrs. Beatrice Davidson		100.00
	Mrs. L. S. Davies		100.00
	Mrs. Gordon Graham		100.00
	Park Plaza Hotel		100.00
	Mrs. J. A. Rhind		100.00
	Mrs. Norman S. Robertson		100.00
	Mrs. John L. Smart		100.00
	Dr. Evelyn Bateman		50.00
	Mr. L. G. Bateman		50.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
DEPARTMENTAL FUNDS (Concluded)			
Gulbenkian Foundation - Far Eastern Grant Textiles Account	Mrs. R. S. Brown \$ 50.00 Mrs. W. O. M. Ede 50.00 Mr. Robert Pepall 50.00 T. D. F. Film Productions Ltd. 50.00 Various Donors 1,387.48		\$4,787.48 2,167.50
Gulbenkian Foundation Inc. Miss Katherine A. Gray \$1,500.00 Cording Specialists (Canada) Ltd. 480.00 Various Donors 10.00			1,990.00 27,305.00
Weston Charitable Foundation Grant Earth Sciences: Mineralogy Specimens Quetico Foundation - Geology Life Sciences: Ornithological Specimens	W. Garfield Weston Charitable Foundation Canadian Jewellers Institute Quetico Foundation		765.00 250.00
Research and Exhibits	Mrs. Ethel Burnham \$ 85.00 Mr. H. G. Lumsden 150.00 Canadian National Sportsmen's Show 100.00 Canadian National Sportsmen's Show \$4,400.00 Dr. R. L. Peterson 1,000.00		335.00 5,400.00
General Accounts: Children's Clubs General Publications Account Laidlaw Foundation Quarterly Bulletin <i>Rotunda</i>	Mrs. Jocelyn Macaulay Centennial Commission (for Textile Show) Laidlaw Foundation		75.00 2,175.00 11,000.00
		\$114,703.92	\$131,936.45
	TOTAL: Departmental Funds	\$189,319.62	\$644,208.56
RESEARCH FUNDS			
Faculty of Applied Science and Engineering Atomic Energy of Canada Ltd. - Zirconium Research	Atomic Energy of Canada Ltd.		\$21,500.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
Atomic Energy of Canada Ltd. - High Voltage Generator Study	Atomic Energy of Canada Ltd.		\$ 26,335.53
Canadian Council on Urban and Regional Research	Canadian Council on Urban and Regional Research		1,963.84 rfd
Central Mortgage and Housing Corporation Grant	Central Mortgage and Housing Corporation		1,800.00
Donner Foundation Research Grant	Donner Canadian Foundation		10,000.00
Electric Reduction of Canada Ltd. Research Grant	Electric Reduction Co. of Canada Ltd.		15,250.00
Engineering Institute of Canada Grant - Industrial Engineering - Civil Engineering	Donner Canadian Foundation Engineering Institute of Canada		20,397.00
Federal Pacific Electric of Canada Grant	Federal Pacific Electric of Canada		13,600.00
Ford Foundation Research Grant	Ford Foundation	\$30,000.00	2,800.00
Groundwood Bleach Grants	Ontario Paper Co. Ltd. Abitibi Paper Co. Ltd.	25,000.00 8,750.00	10,787.50
Mechanical Engineering Research Grant	Professor James F. Keffer Professor I. G. Currie	\$ 577.00 60.00	63,750.00
National Aeronautics and Space Administration Grants (5)	National Aeronautics and Space Administration Procter and Gamble Co. of Canada Ltd.		637.00
United States Air Force Grants (12)	Procter and Gamble Co. of Canada Ltd.		82,867.72
Defence Research Board of Canada Grants (28)	Government of Canada		3,000.00
Department of Energy, Mines and Resources Grant	Government of Canada, Dept. of Energy, Mines and Resources		109,815.74
Medical Research Council Grants	Government of Canada		222,889.00
National Research Council Grants	Government of Canada		23,717.00
National Research Council Special Grants	Government of Canada		9,694.50
National Health Grants	Government of Canada		1,571,427.24
Department of Defence Production Contract	Government of Canada, Department of Defence Production		14,000.00
Department of Indian Affairs Contract	Government of Canada, Department of Indian Affairs		7,747.75
Atomic Energy Contract	Atomic Energy of Canada Limited		11,415.55
United States Government Contracts	United States Government: Department of Air Force Department of the Navy	\$90,024.54 21,147.48	2,400.00
			5,625.00
			111,172.02
			\$2,360,664.71
<i>Faculty of Architecture</i>			
Canadian Council on Urban and Regional Research Grant	Canadian Council on Urban and Regional Research		\$ 242.62
Department of Northern Affairs Grant	Government of Canada, Department of Northern Affairs		3,200.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
Department of Tourism and Information Research Grant			\$15,000.00
Ontario Department of Economics and Development Grants (2)			6,100.00
National Research Council Grants			753.63
			<hr/>
			\$23,788.99
<i>Faculty of Arts and Science</i>			
Alcoholism and Drug Addiction Research Foundation Grant			\$ 3,875.00
Amex Exploration Research Grant			1,000.00
American Chemical Society Grants (3)			19,398.75
Canada Council Grants - Department of French (2)			27,000.00
- Department of English (2)			4,980.00
- Department of Fine Arts (2)			5,989.00
- Department of Italian and Hispanic Studies (2)			
- Department of East Asian Studies			9,032.00
- Department of History			11,500.00
- Department of Classics			4,000.00
- Department of Mathematics			5,975.00
- Department of Political Economy (2)			5,450.00
- Department of Psychology (2)			14,400.00
- Department of Sociology (4)			10,092.00
Canadian Council on Urban and Regional Research			38,230.00
Canadian National Sportsmen's Show Grants - Zoology (3)			1,600.00
Corn Industries Research Foundation Grant - Botany			3,640.00
Department of Economics and Development Grant - Geography			6,513.75
Department of Labour Grant - History			15,152.00
Donner Canadian Foundation Grant - East Asian Studies			5,000.00
Falconbridge Mines Grant - Chemistry			10,000.00
Fisheries Research Board Grants (5)			1,000.00
Forest Insect Research			29,230.00
A. V. Gundy Research Grant - Department of French			4,000.00
W. S. Hargraft Estate Grant - Zoology			1,200.00
Huntec Limited Research Grant - Geophysics			8,000.00
Imperial Oil Ltd. Grant			4,000.00
Invertebrate Migration Account - Monarch Butterflies			3,000.00
Merck, Sharp and Dohme Research Grant - Chemistry			1,746.34
Multiple Sclerosis Society Grant - Zoology			1,078.75
			<hr/>
			10,444.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
Muscular Dystrophy Association Grants (2) - Zoology	Muscular Dystrophy Association of Canada		\$ 13,210.00
National Geographic Society Grant - Monarch Butterflies	National Geographic Society		5,370.31
National Science Foundation Grants	National Science Foundation		48,318.00
Ontario T.B. Association Grant	Ontario Tuberculosis Association		2,600.00
Paint Research Institute Grant	Paint Research Institute		3,096.00
Polymer Corporation Ltd. Grant	Polymer Corporation Ltd.		3,500.00
Science Secretariat Research Grant - Biology	Government of Canada, Science Secretariat of the Privy Council		58,167.07
United States Government Grants:			
Department of Commerce	United States Government		5,088.44
Federal Water Pollution Control Administration	United States Government		20,572.78
Department of the Air Force	United States Government		12,998.78
Department of Health, Education and Welfare	United States Government		5,161.79 rfd
Wildlife Management Institute Grant	Wildlife Management Institute		321.25
American Society of Papyrologists Grant	American Society of Papyrologists		750.00
Ontario Heart Foundation Grants	Ontario Heart Foundation		4,200.04
National Research Council Grants	Government of Canada		2,986,182.34
National Research Council Biosciences Grant	Government of Canada		5,000.00
Defence Research Board Grants (18)	Government of Canada, Dept. of National Defence		74,874.00
Department of University Affairs (69)	Province of Ontario, Department of University Affairs		1,500.00 rfd
Department of Agriculture Grant	Government of Canada, Dept. of Agriculture		4,000.00
Department of Energy, Mines and Resources Grant	Government of Canada, Department of Energy, Mines and Resources		5,300.00
Department of Forestry and Rural Development	Government of Canada, Department of Forestry and Rural Development		2,400.00
Department of Indian Affairs and Northern Development	Government of Canada, Department of Indian Affairs and Northern Development		1,800.00
Department of Mines and Technical Surveys	Government of Canada, Department of Mines and Technical Surveys		15,920.00
Department of Northern Affairs and National Resources	Government of Canada, Department of Northern Affairs and National Resources		500.00
Department of Transport, Meteorological Branch Grants	Government of Canada, Department of Transport, Meteorological Branch		34,800.00
National Cancer Institute Grants (10)	National Cancer Institute		39,950.00
Medical Research Council Grants	Government of Canada		40,840.50
National Health Grants	Government of Canada		24,779.04
Ontario Mental Health Foundation Grants	Ontario Mental Health Foundation		45,810.83
Government of Canada Contracts	Government of Canada	\$16,283.05	
	Central Mortgage and Housing Corporation	2,400.00	
			18,683.05

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
United States Government Contracts	United States Government: Department of Air Force Department of Navy Department of Interior Geological Surveys	\$24,559.26 37,425.56 9,222.97	\$ 71,207.79
			<u>\$3,789,105.02</u>
<i>Banning and Best Department of Medical Research</i>			
Dr. Charles H. Best Foundation	Dr. Charles H. Best Foundation		\$ 60,000.00
Bickell Foundation Grants (2)	J. P. Bickell Foundation		11,881.00
John W. Billes Estate	Estate of John W. Billes		25,445.00
Lunenfeld Charitable Foundation Grant	Eli Lilly & Co.		13,582.03
Multiple Sclerosis Research Grant	Samuel Lunenfeld Charitable Foundation		10,000.00
Muscular Dystrophy Association Grant	Multiple Sclerosis Society of Canada		6,050.00
Ontario Cancer Treatment and Research Foundation Grant	Muscular Dystrophy Association of Canada		1,057.01
Anonymous Cancer Research Donation	Ontario Cancer Treatment and Research Foundation		10,000.00
United States Government Grants (3)	Anonymous Donor		2,000.00
Ontario Heart Foundation Grants	United States Government, Department of Health, Education and Welfare		50,053.63
Defence Research Board Grants	Ontario Heart Foundation		7,896.99
Medical Research Council Grants	Government of Canada, Department of National Defence Government of Canada		13,787.00
			<u>153,971.97</u>
			<u>\$365,724.63</u>
<i>School of Business</i>			
Bell Telephone of Canada Grant	Bell Telephone Co. of Canada		\$ 8,500.00
Canada Council Grant	Canada Council		10,000.00
Canadian National Railways Grant	Canadian National Railways		20,000.00
Econometric Forecasting Model Research Grant 67/68	Bell Telephone Co. of Canada	\$2,000.00	
	Canadian Imperial Bank of Commerce	2,000.00	
	Dominion Foundries and Steel Ltd.	1,500.00	
	Dominion Stores Ltd.	500.00	
	Ontario Paper Co. Ltd.	\$ 500.00	

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
University of Chicago Research Grant	Wood Gundy Securities Ltd. University of Chicago	\$500.00	\$ 7,000.00 15.65 rfd \$45,484.35
<i>Institute of Child Study</i> Atkinson Charitable Foundation Grant Thistletown Hospital Contract Ontario Mental Health Foundation Contract Government of Canada Contract	Atkinson Charitable Foundation Government of Canada Ontario Mental Health Foundation Government of Canada, Department of Health and Welfare		\$ 5,962.00 142,645.71 44,539.22 1,439.88 \$194,586.81
<i>Institute of Computer Science</i> Canada Council Grants (2) National Research Council Grants National Research Council Grants (Less CF28 Reported with Building Funds) Defence Research Board Grants	Government of Canada Government of Canada Government of Canada Government of Canada, Department of National Defence	\$421,503.00 113,214.00 Dr	\$ 5,000.00 308,289.00 800.00 \$314,089.00
<i>Centre for Criminology</i> Ford Foundation Grant Nuffield Foundation Grant Department of the Attorney-General Ford Foundation Grant	The Ford Foundation The Nuffield Foundation Province of Ontario, Department of the Attorney-General The Ford Foundation		\$ 41,399.53 16,200.00 65,500.00 51,276.95 \$174,376.48
<i>Faculty of Dentistry</i> University of Toronto Dental Research Fund Kellogg Foundation Research Grant	Royal College of Dental Surgeons of Ontario W. K. Kellogg Foundation Refund	\$14,431.24 831.24 rfd	\$ 1,000.00 13,600.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
United States Government Research Grant	United States Government, Department of Health, Education and Welfare		\$ 854.33 rfd
National Research Council Grants	Government of Canada		96,177.52
Ontario Cancer Treatment and Research Foundation Grants	Ontario Cancer Treatment and Research Foundation		4,258.10
National Health Grants	Government of Canada		39,591.77
World Health Organization Grant	World Health Organization		1,260.00 rfd
			<hr/>
			\$152,513.06
			<hr/>
<i>Centre for Study of the Drama</i>	Government of Canada		\$1,000.00
Canada Council Grant	The Laidlaw Foundation		3,000.00
Laidlaw Foundation Grant			<hr/>
			\$4,000.00
			<hr/>
<i>Institute of Earth Sciences</i>	Government of Canada		\$ 6,739.00
Defence Research Board of Canada	International Council of Scientific Unions		1,072.51
Seismic Crustal Thickness Determinations Grants	Government of Canada		98,001.00
National Research Council Grants	Government of Canada, Department of Mines and Technical Surveys		6,880.00
Department of Mines and Technical Surveys Grant			<hr/>
			\$112,692.51
			<hr/>
<i>Faculty of Forestry</i>	Trustees of the Toronto General Burying Ground		\$500.00
Shade Tree Research Fund	Board of Education, Borough of York		100.00
	Various Donors		15.00
			<hr/>
			\$ 615.00
			<hr/>
Department of Forestry and Rural Development Grant	Government of Canada, Department of Forestry and Rural Development		23,000.00
National Research Council Grants	Government of Canada		11,282.00
Government of Canada Grants	Government of Canada, Department of Lands and Forests		3,846.84
			<hr/>
			\$38,743.84

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
<i>Faculty of Food Sciences</i>			
Fisheries Research Board of Canada Grant	Government of Canada, Department of Fisheries		\$19,000.00
Unimix Surplus Account	Scientific Development Committee		7,671.03
National Research Council Grants	Government of Canada		11,902.00
Ontario Heart Foundation Grants	Ontario Heart Foundation		9,025.00
			<u>\$47,598.03</u>
<i>Great Lakes Institute</i>			
Atomic Energy of Canada Grant	Atomic Energy of Canada Ltd.	\$	18,600.00
Canadian National Sportsmen's Show Grants	Canadian National Sportsmen's Show		2,470.00
Department of Energy, Mines and Resources Grants (2)	Government of Canada, Department of Energy, Mines and Resources		13,000.00
Department of Mines and Technical Surveys	Government of Canada, Department of Mines and Technical Surveys		31,500.00
Fisheries Research Board of Canada Grants	Government of Canada, Department of Fisheries		10,000.00
National Research Council Grants	Government of Canada		100,862.00
National Research Council Symposium Grant	Government of Canada		1,000.00
Department of Energy, and Resources Management	Province of Ontario, Department of Energy Resources Management		32,500.00
Ontario Water Resources Contract	Province of Ontario		30,863.22
Department of Transport Contract	Province of Ontario		9,386.32
Ontario Highway Commission Contract	Province of Ontario		2,286.49
			<u>\$252,468.03</u>
<i>School of Hygiene</i>			
Banting Research Foundation Grant	Banting Research Foundation	\$	3,791.33
Nato Grant	North Atlantic Treaty Organization		10,812.50
Ontario Department of Health Research Grant	Province of Ontario, Department of Health		1,000.00
Ontario Research Foundation Grant	Ontario Research Foundation		12,000.00
World Health Organization Grants (3)	World Health Organization		20,535.63
National Health and Welfare Contract	Government of Canada, Department of Health and Welfare		74,995.16
Medical Research Council Grants	Government of Canada		156,664.31
National Cancer Institute Grants	National Cancer Institute		7,290.00
National Research Council Grants	Government of Canada		27,059.00
Defence Research Board of Canada Grants	Government of Canada, Department of National Defence		445.00
Ontario Heart Foundation Grants	Ontario Heart Foundation		9,775.00
Department of Agriculture Grant	Government of Canada, Department of Agriculture		11,880.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
National Health Grants	Government of Canada		\$281,245.53
<i>Centre for Industrial Relations</i>			\$617,493.46
Department of Labour Grants	Province of Ontario, Department of Labour		\$1,400.00
Industrial Relations Membership Account	Imperial Oil of Canada		1,000.00
			\$2,400.00
<i>Faculty of Law</i>			
Canada Council Grant	Canada Council	\$ 3,500.00	
Department of Labour (Federal) Grant	Government of Canada, Department of Labour	4,000.00	
Laidlaw Foundation Grant	Laidlaw Foundation	7,777.00	
Vanier Institute of the Family Grant	Vanier Institute of the Family	5,000.00	
			\$20,277.00
<i>Library</i>			
Canada Council Research Grants	Canada Council	\$20,000.00	
Donner Foundation Grant	Donner Canadian Foundation	20,000.00	
Midwestern Regional Library System Grant	Midwestern Regional Library System	500.65	
			\$40,500.65
<i>School of Library Science</i>			
National Research Council Grant	Government of Canada	\$2,952.00	
			\$2,952.00
<i>Faculty of Medicine</i>			
Alcohol Research Foundation Grant - Pharmacology	Alcoholism and Drug Addiction Research Foundation	\$235,000.00	
American Heart Association Research Grant	American Heart Association	12,678.49	
American Medical Association Research Project	American Medical Association Education and Research Foundation		19,042.07
Astra Pharmaceuticals Ltd. Grant	Astra Pharmaceuticals (Canada) Ltd.	1,000.00	
Atkinson Foundation Grant - Pathological Chemistry	Atkinson Charitable Foundation	28,000.00	
Ayerst, McKenna & Harrison Ltd. Grant - Pharmacology	Ayerst, McKenna & Harrison Ltd.	5,000.00	
Banting Research Foundation Grants (2)	Banting Research Foundation	7,600.00	

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
Barbara Popik Berman Memorial Fund - Pharmacology	National Council of Jewish Women, Barbara Popik Berman Memorial Fund		\$ 850.00
Bickell Foundation Grants (6)	J. P. Bickell Foundation	\$150.00	89,614.00
Blood Research Fund	Mrs. Betty Grant	101.00	
	Floor Traders, Toronto Stock Exchange	100.00	
	Various Donors		
Boehringer Ingelheim Research Grants (2)	Boehringer Ingelheim Products		\$ 351.00
Canada Council Grant - Psychiatry	Canada Council		5,130.00
Canadian Arthritis and Rheumatism Society Grants (12)	Canadian Arthritis and Rheumatism Society		5,760.00
Canadian Diabetic Association Grants (2)	Canadian Diabetic Association		115,051.35
Canadian Foundation for the Advancement of Therapeutics Grants (2)	Canadian Foundation for the Advancement of Therapeutics		5,500.00
Canadian Heart Foundation Grants (2)	Canadian Heart Foundation		11,120.00
Canadian Hoechst Research Grant - Pharmacology	Canadian Hoechst Limited		11,000.00
Canadian Life Insurance Association Grants (3)	Canadian Life Insurance Association		2,000.00
Cancer Research Pool	James Franceschini Foundation	\$1,000.00	20,500.00
	Dr. Margaret Bickle	100.00	
Cardiovascular Surgery Fund	Mr. John M. Connell	\$ 500.00	\$ 1,100.00
	Mrs. Elizabeth C. Kennedy	500.00	
	Mr. Roy Wilson	500.00	
	Mr. T. G. M. Davidson	100.00	
	Mr. J. R. Strods	100.00	
	Mr. Morris P. Greenberg	50.00	
CIBA Company Research Grant - Otolaryngology	CIBA Company		\$ 1,750.00
James Clemens Estate Commonwealth Fund Grant	Estate of James Clemens The Commonwealth Fund		2,000.00
Coronary Thrombosis Unit	Mrs. Aimee Biggar	\$4,000.00	\$64,518.75
	Mr. J. C. Rykert	3,000.00	
	Mr. R. Royce	50.00	
	Mr. A. Walker	50.00	
James H. Cummings Foundation Research Grant - Pharmacology	James H. Cummings Foundation Inc.		\$ 7,100.00
Denison Mines-S. B. Roman Foundation Grant - Physiology	Denison Mines	\$5,000.00	10,000.00
	S. B. Roman Foundation	1,000.00	
			6,000.00
		\$217,957.84	

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
Dermatology Library Grant	Eli Lilly & Co. (Canada) Laboratories Ltd., Dome Laboratories Division	\$50.00 50.00	\$ 100.00 30,000.00 2,522.00 715.93 500.00 500.00 27,900.00 22,000.00 4,000.00 500.00 350.00 8,484.78 6,000.00 4,361.10 7,000.00 30,144.24
Donner Foundation Grant - Medical Biophysics	Donner Foundation		
John David Eaton Equipment Grant - Otolaryngology	Mr. John David Eaton		
Eaton Laboratories Research Grant - Surgery	Eaton Laboratories		
Elliott-Marion Research Grant - Medicine	Elliott-Marion Company Ltd.		
Endocrine Research Grant - Medicine	Anonymous Donor		
Thomas Foster Estate - Residuary Trust	Estate of Thomas Foster		
Fund for Investigation of Hearing in Infants	Anonymous Donor		
Geigy (Canada) Ltd. Grant - Pharmacology	Geigy (Canada) Ltd.		
General Research Fund - Biochemistry	Mrs. A. Minden		
Geriatric Research Fund	Miss Mary P. Carter		
Flora Cameron Gray Trust	Flora Cameron Gray Charitable Trust		
Hoechst Pharmaceuticals of Canada Ltd. Grant	Hoechst Pharmaceuticals of Canada Ltd.		
Leza Horne Estate	Estate of Leza Horne		
Hospital for Sick Children Grant - Surgery	Hospital for Sick Children		
James and Hannah Inglee Memorial Research Fund	Estate of Inez Gwendolyn Inglee		
Reva Samuels Jacobson Memorial Fund	Mr. Maurice Stekel Mr. S. F. Samuels Various Donors	\$ 65.00 50.00 104.50	
Kidney Research Fund	Dr. Grant Farrow Mr. G. McMillan Balmoral Public School Mr. Ronald Ellis Various Donors	\$2,500.00 100.00 50.00 50.00 302.50	\$219.50
Laidlaw Foundation Grant - Medicine	Laidlaw Foundation		\$ 3,002.50
Sarah Edith Lakey Estate	Estate of Sarah Edith Lakey		8,750.00
Lockwood Foundation Grant for Heart Research	Lockwood Foundation		26,480.17
McConnell Foundation Inc. Research Grant - Psychiatry	J. W. McConnell Foundation Inc.		540.00
Medical Heart Fund	Mrs. C. G. Flemming Miss Mary Rupert Mrs. Mary Morrison	\$2,000.00 500.00 50.00	15,000.00
			2,550.00

III. BENEFACTIONS- YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
Medical Staff Association Toronto General Hospital - Special Projects Fund	Toronto General Hospital	\$ 9,668.00	\$ 11,983.48
Medical Staff Association - Toronto General Hospital: Third Party Trust Account	Toronto General Hospital	70,195.43	200,147.19
Medical Staff Association - Special Operating Grants: Anaesthesia	Toronto General Hospital	9,482.02	
Medicine	Toronto General Hospital	8,676.52	
Obstetrics and Gynaecology	Toronto General Hospital	1,156.25	
Ophthalmology	Toronto General Hospital	2,300.00	
Psychiatry	Toronto General Hospital		
Radiology	Toronto General Hospital		
Rehabilitation Medicine	Toronto General Hospital		
Professor T. J. Meek Estate - Arthritis Research	Estate of Professor T. J. Meek	\$101,678.22	
Muscular Dystrophy Association Grants (6)	Muscular Dystrophy Association of Canada	2,000.00	
Nephrology Research Grant	Standard Securities Ltd.	20,501.55	
	Various Donors	\$1,000.00	
Neurosurgical Research Fund		57.00	
	Mrs. E. C. Kennedy	\$500.00	\$ 1,057.00
	Mr. J. N. Connell	500.00	
	Dr. H. W. K. Barr	200.00	
	Mr. John Gettys	100.00	
	Dr. R. J. Hoffman	50.00	
	Dr. T. P. Morley	50.00	
	Various Donors	45.00	
Ontario Geriatrics Society Grant - Ophthalmology	Ontario Geriatrics Research Society	\$7,000.00	\$ 1,445.00
Ontario Hospital Services Commission - Toronto Eye Bank Research Fund	New Mount Sinai Hospital	7,000.00	4,000.00
	St. Michael's Hospital	7,000.00	
	Toronto Western Hospital	7,000.00	
	Toronto General Hospital	3,777.62	
Ontario Society for Crippled Children Research Grant	Ontario Society for Crippled Children		\$ 24,777.62
Ontario Thoracic Society - Clinics Account	Ontario Thoracic Society		11,730.03
			364.68
Ontario T.B. Association Grants (2)	Ontario Tuberculosis Association		12,911.20
Ortho Pharmaceutical Grant - Obstetrics and Gynaecology	Ortho Pharmaceutical (Canada) Ltd.		2,000.00
Pfizer Co. Ltd. Grant - Biomedical Electronics	Pfizer Company Ltd.		9,725.00

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
Pharmacology Students' Research Fund	Burroughs Wellcome & Co. (Canada) Ltd. Ciba Company Ltd. Geigy (Canada) Ltd.	\$1,000.00 1,200.00 1,200.00	\$ 3,400.00
Professors' Research Fund	Dr. J. R. Hilliard Refund of 1966/67 donation - Dr. J. M. Finlay	\$204.15 977.50 rfd	\$ 773.35 rfd 38.00
Reeve Ophthalmic Research Fund Respiratory Research Fund	Various Donors Riker Pharmaceutical Co. Mr. Peter MacLachlan Mrs. H. H. Lowndes Mrs. Mary Hogarth Mr. L. M. Keachie Mr. and Mrs. R. C. Berkinshaw Mr. Lucien G. Rolland Various Donors	\$1,612.50 150.00 100.00 100.00 100.00 50.00 50.00 491.26	\$ 2,653.76 5,000.00 1,200.00 50,000.00 2,000.00 rfd 500.00
Rykert Fund for Heart Research Selkirk Eye Research Fund Irene Eleanor Smythe Estate - Clinic Account Standard Security Ltd. Grant - Physiology Syntex Ltd. Research Grant - Medicine Toronto Western Hospital Cardiovascular Fund	Clair Investments Anonymous Donor Estate of Irene Eleanor Smythe Standard Security Ltd. Syntex Limited Mr. R. Rule Mr. and Mrs. G. E. Scott Mr. A. Pagnutti Various Donors	\$1,000.00 100.00 50.00 70.00	\$ 1,220.00
United States Government Grants	United States Government: Department of Army Medical Research and Development Command Department of Health, Education and Welfare Upjohn Company of Canada Mrs. Frances Wallace Mrs. E. A. Wilson Queen Elizabeth II Fund Government of Canada, Department of National Defence Government of Canada		\$ 45,219.21 12,696.75 rfd 6,500.00 300.00 1,000.00 7,500.00 83,964.05 2,318,302.25
Upjohn Co. of Canada Grant - Obstetrics and Gynaecology Allan Walters Fund for Psychosomatic Medicine Mrs. E. A. Wilson Research Grant - Obstetrics and Gynaecology Queen Elizabeth II Scholarship Fund Defence Research Board Grants Medical Research Council Grants			

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
National Research Council Grants	Government of Canada		\$ 67,387.65
National Cancer Institute Grants	National Cancer Institute		57,688.67
Ontario Cancer Treatment and Research Grants	Ontario Cancer Treatment and Research Foundation		119,434.12
Ontario Heart Foundation Grants	Ontario Heart Foundation		233,264.69
John and Amy McArthur Fund	Estate of John and Amy McArthur		296.60
V. J. McLellan Estate Operating Grant	Dr. G. B. Feinman		337.00
National Health Grants	Government of Canada		199,014.30
Ontario Mental Health Foundation Grants	Ontario Mental Health Foundation		83,652.41
United States Government Contract	United States Government, Department of Health, Education and Welfare		32,390.22
Sunnybrook Hospital Contract	Sunnybrook Hospital		11,248.53
Health Resources Fund	Province of Ontario, Department of Health		143,314.80
		<u>\$218,177.34</u>	<u>\$4,736,743.51</u>
<i>Faculty of Pharmacy</i>			
Canadian Foundation for the Advancement of Pharmacy Grant	Canadian Foundation for the Advancement of Pharmacy Refund	\$3,000.00	
		<u>1,200.00</u> Dr	
Merck, Sharp & Dohme Grant	Merck, Sharp & Dohme of Canada Ltd.		\$ 1,800.00
Pharmacy Research Fund	Ladies Auxiliary to Rho Pi Phi Pharmaceutical Association		1,500.00
Smith, Kline and French Grant	Smith, Kline and French Inter-American Corporation		500.00
Defence Research Board Grants	Government of Canada, Department of National Defence		1,000.00
Medical Research Council Grants	Government of Canada		8,937.00
National Research Council Grants	Government of Canada		70,243.00
			<u>11,849.00</u>
			<u>\$95,829.00</u>
<i>Institute for Quantitative Analysis</i>			
Department of Finance Grant	Government of Canada		\$24,425.00
Econometric Forecasting Model Grant	Manufacturer's Life Insurance Company	\$500.00	
	Dominion Foundries and Steel Ltd.	<u>1,500.00</u>	
	North American Life Insurance Company	500.00	
	Eaton Foundation	1,000.00	
	Imperial Oil Limited	5,000.00	
	Canadian Pacific Railways	<u>750.00</u>	
	International Business Machines Ltd.	5,000.00	

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Continued)

Name of Fund	Donor	Endowment Funds	Expendable Funds
RESEARCH FUNDS (Continued)			
Department of Industry	Canadian International Paper Company \$500.00		\$14,750.00
	Government of Canada, Department of Industry		5,009.32
			<u>\$44,184.32</u>
<i>Centre for Russian and East European Studies</i>	Government of Canada		\$15,000.00
Canada Council Grants	Jozo Weider Limited (Blue Mountain Pottery Company)		1,000.00
Jozo Weider Grant			<u>\$16,000.00</u>
<i>School of Social Work</i>	Laidlaw Foundation	\$6,071.50	
Harry M. Cassidy Memorial Research Fund	Mr. Ralph Henson	390.00	
	Mr. Stuart Legge	125.00	
	Various Donors	80.00	
			<u>\$6,666.50</u>
National Health Grants	Government of Canada		607.33
Department of Reform Institutions Contract	Province of Ontario, Department of Reform Institutions		181.10
Department of National Health and Welfare	Government of Canada, Department of National Health and Welfare		138,827.41
			<u>\$146,282.34</u>
<i>Royal Ontario Museum</i>	Harvie Foundation		\$ 4,000.00
British Honduras Research Grant	Canada Council		14,922.00
Canada Council Grants (4)	Government of Canada, Department of Fisheries		21,000.00
Canadian Fisheries Research Board Grants (2)	Canadian National Sportsmen's Show		1,000.00
Canadian National Sportsmen's Show Grant	Dominion Glass Co. Ltd.		7,500.00
Dominion Glass Centennial Research Foundation Grant	National Museum of Canada		350.00
National Museum Parry Island Ojibwa Project	Quetico Foundation		750.00
Quetico Foundation Research Grant	Wenner-Gren Foundation for Anthropological Research		968.63
Wenner-Gren Foundation Grant	Government of Canada		17,959.27
National Research Council Grants	National Science Foundation		182.00
National Science Foundation Grants	Government of Canada		6,650.32
National Health Grants			<u>\$75,282.22</u>

III. BENEFACTIONS, YEAR ENDED 30 JUNE 1968 (Concluded)

Name of Fund	Donor	Endowment Funds	Expendable Funds
BUILDING FUNDS			
National Fund	National Fund		\$ 51,300.00
Medical Complex	Province of Ontario		6,575,000.00
New School of Business and School of Social Work	Metropolitan Toronto		240,000.00
National Research Council Computer Facilities:			
Replacement		\$33,323.00	
Plotter		2,728.00	
Improvements 1967		75,861.00	
Chemistry Terminal		1,302.00	
		<hr/>	
Erindale College - Temporary Accommodation	Province of Ontario		\$ 113,214.00
St. George Campus - Temporary Accommodation	Province of Ontario		96,000.00
			149,620.00
	TOTAL: Building Funds		<hr/>
			\$7,225,134.00

STATISTICAL APPENDIX

To the Report of the Registrar

I beg to submit the following statistics for the academic year ended 30 June 1968:

- I Distribution of the Academic Staff of the University and the Constituent Colleges.
- II Distribution of the Staffs of the Federated Colleges.
- III Enrolment of students:
 - (a) summary by faculties;
 - (b) report by faculty, course and academic year;
 - (c) Faculty of Arts and Science, by colleges;
 - (d) School of Graduate Studies, by departments.
 - (e) Enrolment in multi-faculty colleges.
- IV Report on degrees, diplomas and certificates awarded.
- V Geographical distribution of students.

J. M. TUSIEWICZ

Director of Statistics and Records

I. DISTRIBUTION OF THE ACADEMIC STAFF OF THE UNIVERSITY AND THE CONSTITUENT COLLEGES, 1967-1968

	Professors		Associate Professors		Assistant Professors		Associates		Lecturers		Deans		Directors		Principals		Special Professors and Directors		Instructors		Other seasonal appointments		Visiting Staff		Totals		TOTAL
	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	F	P	
Faculty of Arts and Science	152	17	149	18	136	18	49	26	1	1	16	30	5	850	33	508	992	1,500									
University College	27	7	17	1	21	11	19	4			1	4	2	90		88	117	205									
New College			1		3	9	1	4						19		6	32	38									
Innis College																											
Scarborough College	5	1	13	1	32	2	19	4	1	1	13	3	2	100	1	86	112	198									
Erindale College	4		4	3	2	5	8	5	1	1	2	2	13	2		20	28	48									
Faculty of Applied Science and Engineering	37	4	56	3	39	2	14	1	1	1	5	63	1	334	2	153	409	582									
Faculty of Architecture	6		15	3	11	1	4	5	1	1			8			37	17	54									
School of Business	7	1	6	1	2	1	6	1	1	1			21			16	30	46									
Institute of Child Study			1	1	2	2	4						15	1		22	13	35									
Faculty of Dentistry	13	3	7	6	4	10	1	130	1	1			1	82		27	240	267									
College of Education	20	2	22		17		6		1	1			25	1		92	4	96									
Faculty of Food Sciences			5	5	5	1	9	1	1	1			11	1		20	13	33									
Faculty of Forestry	4		3	8	1	1	4	4	1	1			4	2		15	7	22									
School of Hygiene	12	3	8	8	10	10	2	2	1	1				6		33	70	103									
Faculty of Law	8		8		3		3							10		20	10	30									
School of Library Science	4		5		7									6		17	8	25									
Faculty of Medicine	55	19	44	65	42	132	14	97	1	1			42	92	337	271	726	987									
Faculty of Music	5		6	1	5	1	7	2	1	1				2		26	4	30									
School of Nursing			7	1	10	2	6	4	1	1				3		24	13	37									
Faculty of Pharmacy	5		5	1	1	1	1	1	1	1				2		13	39	52									
School of Physical and Health Education			1	3	4		9		1	1			8	12		23	15	38									
School of Social Work	5		6		6	2	4	2	1	1				1		22	9	31									
School of Graduate Studies									1	1						1		1									
University Extension					2	2	2	2	1	1				2		6	3	9									
Institute of Computer Science	1	4	2	1	1	1	1	1	1	1						5	44	49									
Graduate Departments	3																										
Centres and Institutes					3																						
Non-Department Professors	1	2																									
Sunnybrook Hospital	3	2	5	7	8	7	3	8	1	1																	
TOTAL	374	68	396	124	374	224	18	235	180	91	13	9	5	3	5	3	85	127	130	2,136	52	1,598	3,060	4,658			

II. DISTRIBUTION OF THE STAFFS OF THE FEDERATED COLLEGES, 1967-1968

	Victoria College		Trinity College		St. Michael's College	
	Full-Time	Part-Time	Full-Time	Part-Time	Full-Time	Part-Time
Professors.....	22	1	15		29	
Associate Professors	20		11		21	
Assistant Professors	27		6		27	
Professors Emeriti..	4		2		3	
Lecturers.....	15	3	8	2	12	
Visiting Lecturers..						2
Instructors.....	5	5				3
Special Instructors.			1			
Fellows.....		39		5		41
Teaching Fellows...				12		
Special Lecturers...				5		4
Cross-Appointees...				2		
TOTALS.....	93	48	43	26	92	50

III(A). FINAL REPORT ON ENROLMENT, 1967-1968, SUMMARY BY FACULTIES (concluded)

	SUMMER SESSION 1967												Grand Total			
	Full-time Students						Part-time Students						Total increase from 1966-1967 (1 Dec.)	Grand Total 1966-1967 (1 Dec.)		
	Undergraduate			Graduate			Undergraduate			Graduate						
	Regular	Special	Total	Regular	Special	Total	Regular	Special	Total	Regular	Special	Total	Total increase from 1966-1967 (1 Dec.)	Grand Total		
Faculty, School, Institute	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W
Faculty of Arts and Science:																
General Arts (Extension)																
General Science (Extension)																
College of Education																
School of Graduate Studies (Excl. oise)																
SUB-TOTAL SGS																
School of Hygiene																
Faculty of Medicine																
School of Nursing (Extension)																
TOTAL SUMMER SESSION																
TOTAL CE AND OISE																
TOTAL SUMMER SESSION (Excl. CE and oise)																
GRAND TOTAL																
WINTER AND SUMMER SESSION																

III(B). FINAL REPORT ON ENROLMENT, 1967-1968, BY FACULTY, COURSE AND ACADEMIC YEAR

(T = Total; W = Women)

WINTER SESSION AS AT
1 DECEMBER 1967

Regular Students

Course	Proceeding to First Degrees, Diplomas or Certificates												Proceeding to Graduate Degrees, Diplomas or Certs.				Special Students							
	Full-time						Part-time						Full-time		Part-time		Full-time		Part-time					
	Year 1		Year 2		Year 3		Year 4		Year 5		Total		T		W		T		W		T		W	
	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W
General Arts	1,053	522	1,313	780	1,162	665																		
General Science	523	87	403	92	285	60																		
Honour Courses:																								
Group A (Arts)	447	330	240	159	232	157	224	159																
Group B (Arts)	1,096	635	567	265	368	169	299	135																
Group C (Science)	193	21	142	11	85	8	69	8																
Group D (Science)	169	55	135	42	84	28	72	23																
Commerce and Finance	136	11	95	4	64	3	70	5																
General Arts (Extension)																								
General Science (Extension)																								
Special Students (Day-time)																								
Diploma Course																								
TOTAL	3,617,166	2,895,135	2,280,090	734	330	9,526,434	3,124,164	24	5	279	84	902	390	13,855	6,561									

Faculty of Arts and Science*

General Arts	3,528	1,967
General Science	1,211	239
Group A (Arts)	1,143	805
Group B (Arts)	2,330	1,204
Group C (Science)	489	48
Group D (Science)	460	148
Commerce and Finance	365	23
General Arts (Extension)	3,034	1,639
General Science (Extension)	90	9
Special Students (Day-time)	279	84
Diploma Course	24	5
TOTAL	13,855	6,561

Faculty of Applied Science and Engineering

Bachelor of Applied Science	293	1
Civil Engineering	323	1
Mechanical Engineering	267	2
Industrial Engineering	278	3
Engineering Science	397	12
Chemical Engineering	428	1
Electrical Engineering	35	
Metallurgy and Materials Sc.	36	
Geological Engineering	6	
Special Students	8	
Diploma in Operations Res.	6	
TOTAL	2,057	20

*See Table III Faculty of Arts and Science by Colleges

III(B). FINAL REPORT ON ENROLMENT, 1967-1968, BY FACULTY, COURSE AND ACADEMIC YEAR (continued)

WINTER SESSION AS AT
1 DECEMBER 1967

Regular Students

Course	Proceeding to First Degrees, Diplomas or Certificates										Proceeding to Graduate Degrees, Diplomas or Certs.			Special Students						
	Full-time					Part-time					Full-time			Part-time						
	Year 1	Year 2	Year 3	Year 4	Year 5	Total	T	W	T	W	T	W	T	W	T	W	T	W	Total	
School of Graduate Studies (continued)																				
<i>Educational Theory</i>																				
Doctor of Philosophy																				
Master of Arts																				
Master of Education																				
SUB-TOTAL Educational Theory																				
TOTAL School of Graduate Studies																				
School of Hygiene																				
Diploma in Public Health																				
Diploma in Nutrition																				
Certificate in Public Health																				
Diploma in Bacteriology																				
Diploma in Hospital Admin.																				
Diploma in Industrial Health																				
Special Students																				
TOTAL																				
Bachelor of Laws																				
Bachelor of Library Science																				

III(B). FINAL REPORT ON ENROLMENT, 1967-1968, BY FACULTY, COURSE AND ACADEMIC YEAR (continued)

Course	Regular Students														Special Students										
	Proceeding to First Degrees, Diplomas or Certificates										Proceeding to Graduate Degrees, Diplomas or Certs.			Special Students											
	Full-time										Full-time			Part-time											
	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time	Grand Total									
T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W		
Faculty of Medicine																									
Doctor of Medicine:																									
Pre-Medical Course	135	23	130	28						265	51														
Medical Course	164	33	176	27	172	31	179	27						26	4										
Diploma in Anaesthesia											691	118													
Diploma in Medical Radiology														26	4										
Diploma in Psychiatry														40	7										
Internes, Residents and Fellows														39	9										
B.Sc. (Art as Applied to Med.)	5	4	5	3	1	1						714	73												
Diploma in Physical and Occupational Therapy	118	118	102	102	89	89						11	8	2	2										
Diploma in Speech Pathology and Audiology														309	309										
Teacher's Certificate in Physical Therapy														22	20										
Teacher's Certificate in Occupational Therapy														4	2										
TOTAL	422	178	413	160	262	121	179	27						1,276	486	2	2	846	116	4	1	2,128	605		
Faculty of Music																									
Bachelor of Music	73	26	41	14	35	9	22	12						171	61										
Bachelor of Music in Performance	17	10	32	19	6	4						55	33												
Artist Diploma	4	3	11	6	4	3						19	12												
Licentiate Diploma														4	3										
Artist and Licentiate Diploma	11	9											8	6											
Special Students														11	9										
TOTAL	105	48	88	42	49	19	22	12						264	121	2	1	12	6	2	1	12	6	278	128

III(B). FINAL REPORT ON ENROLMENT, 1967-1968, BY FACULTY, COURSE AND ACADEMIC YEAR (continued)

WINTER SESSION AS AT
1 DECEMBER 1967

Regular Students

Course	Proceeding to First Degrees, Diplomas or Certificates												Proceeding to Graduate Degrees, Diplomas or Certs.			Special Students											
	Full-time						Part-time						Full-time			Part-time											
	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Total	T	W	T	W	T	W	T	W	T	W	T	W	Total		
School of Nursing																											
Bachelor of Science in Nursing: Basic Course	75	64	64	62	45	45	246	246																	246	246	
Course for Graduates of Diploma Schools of Nursing (Extension)	28	26	26	26	45	44	99	96																	99	96	
Certificate in Public Health Nursing, General	50	50					50	50																	50	50	
Special Students																									4	4	
TOTAL	153	151	90	90	107	106	45	45	45	45	395	392	115	111											4	4	
Faculty of Pharmacy																											
Bachelor of Science in Pharmacy	128	49	130	57	119	45	83	28																		12	6
TOTAL	128	49	130	57	119	45	83	28																		12	6
School of Physical and Health Education																											
Bachelor of Physical and Health Education	104	51	98	53	79	46	71	37																		352	187
School of Social Work*																											
Diploma in Advanced Social Work																										4	2
Division of University Extension																											
Certificate in Business																										502	35
Certificate in Public Admin.																										83	6
Certificate in Criminology																										76	9
TOTAL																										661	50
TOTAL WINTER SESSION	5,946	2,264	4,696	1,841	3,635	1,474	1,679	507	38	3	15,994	6,089	3,902	1,811	5,433	1,522	1,225	307	394	120	1,140	472	28,088	10,321			

*Diploma students only; 193 students are included in the School of Graduate Studies.

III(B). FINAL REPORT ON ENROLMENT, 1967-1968, BY FACULTY, COURSE AND ACADEMIC YEAR (continued)

SUMMER SESSION AS AT
15 JULY 1967

Course	Regular Students												Special Students																																
	Proceeding to First Degrees, Diplomas or Certificates												Proceeding to Graduate Degrees, Diplomas or Certs.																																
	Full-time						Part-time						Full-time			Part-time																													
	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Year 1	Year 2	Year 3	Year 4	Year 5	Total	T	W	T	W	T	W	T	W	T	W	T	W	Total																				
Faculty of Arts and Science																																													
Bachelor of Arts:																																													
General Arts (Extension)																																													
Summer Day Session																								1,022	564																				
Summer Evening Session																								833	403																				
General Science (Extension)																																													
Summer Evening Session																								13																					
SUB-TOTAL																								1,868	967																				
School of Graduate Studies																																													
Doctor of Philosophy																																													
Master of Philosophy																																													
Master of Arts																																													
Master of Applied Science																																													
Master of Engineering																																													
Master of Library Science																																													
Master of Music																																													
Doctor of Social Work																																													
Master of Social Work																																													
SUB-TOTAL sgs (Excl. oise)																								266	82																				
Doctor of Philosophy (Ed.)																																													
Master of Arts (Education)																																													
Doctor of Education																																													
Master of Education																																													
SUB-TOTAL OISE																								811	179																				
TOTAL sgs (Incl. oise)																								1,077	261																				
School of Hygiene																																													
Advanced Topics																																													
																							8	2																					
																							116	43																					
																							8	2																					

III(C). FINAL REPORT ON ENROLMENT, 1967-1968, FACULTY OF ARTS AND SCIENCE, BY ACADEMIC YEAR, COLLEGE AND GROUP

(T = Total; W = Women)

WINTER SESSION AS AT
1 DECEMBER 1967

Regular Students

Course	Proceeding to First Degrees, Diplomas or Certificates										Proceeding to Graduate Degrees, Diplomas or Certs.					Special Students										
	Full-time										Full-time					Part-time										
	Year 1		Year 2		Year 3		Year 4		Year 5		Total		T		W		T		W		T		W			
	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W		
I. ST. GEORGE CAMPUS																										
CONSTITUENT COLLEGES																										
<i>University College:</i>																										
General Arts	82	57	220	151	244	165																				
General Science	59	11	56	16	58	9																				
Honour Courses:																										
Group A (Arts)	123	89	63	43	62	45	71	45																		
Group B (Arts)	313	190	141	70	105	47	97	44																		
Group C (Science)	73	8	53	3	30	2	25	3																		
Group D (Science)	48	12	33	8	13	4	17	5																		
Commerce and Finance	21	2	26		20	1	24	2																		
Special Students (Day-time)																										
SUB-TOTAL	719	369	592	291	532	273	234	99																		
<i>New College:</i>																										
General Arts	100	58	184	105	142	64																				
General Science	58	4	84	17	46	8																				
Honour Courses:																										
Group A (Arts)	19	16	7	4	11	8	5	4																		
Group B (Arts)	132	74	58	20	30	12	18	4																		
Group C (Science)	32	3	18	1	15	1	6	1																		
Group D (Science)	30	4	31	8	16	1	17	2																		
Commerce and Finance	29		16	1	7	1	8	1																		
Special Students (Day-time)																										
SUB-TOTAL	400	159	398	156	267	95	54	12																		
<i>Innis College:</i>																										
General Arts	34	15	68	22	69	29																				
General Science	14	1	20	4	21	1																				
SUB-TOTAL																										
GRAND TOTAL																										

III(C). FACULTY OF ARTS AND SCIENCE, BY ACADEMIC YEAR, COLLEGE AND GROUP (continued)

WINTER SESSION AS AT
1 DECEMBER 1967

Regular Students

Course	Proceeding to First Degrees, Diplomas or Certificates										Proceeding to Graduate Degrees, Diplomas or Certs.				Special Students					
	Full-time					Part-time					Full-time		Part-time		Full-time		Part-time			
	Year 1	Year 2	Year 3	Year 4	Year 5	Total	T	W	T	W	T	W	T	W	T	W	T	W		
<i>Innis College (continued)</i>																				
Honour Courses:																				
Group A (Arts)	5	2	5	3	7	3	17	8												
Group B (Arts)	25	11	24	8	8	5	12	3												
Group C (Science)	11	1	9	2	6	1	2													
Group D (Science)	10	1	7	1	2	2	21	3												
Commerce and Finance	8	5	5	4			17													
Special Students (Day-time)																				
SUB-TOTAL	107	31	138	40	117	39	16	4				378	114						378	114

SUB-TOTAL

Constitution Colleges:

General Arts	216	130	472	278	455	258	1,143	666				1,143	666						1,143	666				
General Science	131	16	160	37	125	18	416	71				416	71						416	71				
Honour Courses:																								
Group A (Arts)	147	107	75	50	80	56	76	49				378	262						378	262				
Group B (Arts)	470	275	223	98	143	64	127	51				963	488						963	488				
Group C (Science)	116	12	80	6	51	4	33	4				280	26						280	26				
Group D (Science)	88	17	71	17	31	5	36	8				226	47						226	47				
Commerce and Finance	58	2	47	1	31	2	32	3				168	8						168	8				
Special Students (Day-time)																			46	25	35	19	81	44

SUB-TOTAL

1,226 559 1,128 487 916 407 304 115 3,574 1,568

FEDERATED COLLEGES

Victoria College:

General Arts	161	99	347	224	310	186	818	509				818	509						818	509
General Science	63	16	52	13	54	15	169	44				169	44						169	44
Honour Courses:																				
Group A (Arts)	143	116	79	60	61	46	71	57				354	279						354	279
Group B (Arts)	343	197	164	83	106	53	94	44				707	377						707	377

III(C). FACULTY OF ARTS AND SCIENCE, BY ACADEMIC YEAR, COLLEGE AND GROUP (continued)

WINTER SESSION AS AT
1 DECEMBER 1967

Regular Students

Course	Proceeding to First Degrees, Diplomas or Certificates										Proceeding to Graduate Degrees, Diplomas or Certs.			Special Students												
	Full-time					Part-time					Full-time			Part-time												
	Year 1		Year 2		Year 3		Year 4		Year 5		Total		T	W	T	W	T	W	T	W						
	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W						
<i>Victoria College (continued)</i>																										
Group C (Science)	36	5	31	4	12	4	23	4			102	17								102	17					
Group D (Science)	52	26	35	16	29	13	20	9			136	64								136	64					
Commerce and Finance	53	4	34	2	18	1	21	1			126	8								126	8					
Special Students (Day-time)																				25	11	6	3	31	14	
SUB-TOTAL	851	463	742	402	590	318	229	115			2,412	1,298								25	11	6	3	2,443	1,312	
<i>Trinity College:</i>																										
General Arts	23	9	42	27	59	36					124	72								124	72					
General Science	10	2	17	8	8	3					35	13								35	13					
Honour Courses:																										
Group A (Arts)	56	43	24	13	25	19	31	22			136	97								136	97					
Group B (Arts)	95	47	77	37	58	23	40	17			270	124								270	124					
Group C (Science)	15	1	13		11		7				46	1								46	1					
Group D (Science)	11	6	14	3	15	8	10	4			50	21								50	21					
Commerce and Finance	6	2	8		9		8	1			31	3								8	5	3	1	11	6	
Special Students (Day-time)																										
SUB-TOTAL	216	110	195	88	185	89	96	44			692	331								8	5	3	1	703	337	
<i>St. Michael's College:</i>																										
General Arts	179	95	306	181	275	155					760	431								760	431					
General Science	56	19	60	18	53	17					169	54								169	54					
Honour Courses:																										
Group A (Arts)	101	64	62	36	66	36	46	31			275	167								275	167					
Group B (Arts)	188	116	103	47	61	29	38	23			390	215								390	215					
Group C (Science)	26	3	18	1	11		6				61	4								61	4					
Group D (Science)	18	6	15	6	9	2	6	2			48	16								48	16					
Commerce and Finance	19	3	6	1	6		9				40	4								14	4	10	5	24	9	
Special Students (Day-time)																										
SUB-TOTAL	587	306	570	290	481	239	105	56			1,743	891								14	4	10	5	1,767	900	

III(C). FACULTY OF ARTS AND SCIENCE, BY ACADEMIC YEAR, COLLEGE AND GROUP (continued)

WINTER SESSION AS AT
1 DECEMBER 1967

Course	Regular Students														Special Students			Grand Total							
	Proceeding to First Degrees, Diplomas or Certificates														Proceeding to Graduate Degrees, Diplomas or Certs.										
	Full-time					Part-time					Total				Full-time	Part-time	Full-time		Part-time						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	T	W	T	W	T	W	T		W	T	W	T	W	T	W
SUB-TOTAL: Federated Colleges:																									
General Arts	363	203	695	432	644	377																			
General Science	129	37	129	39	115	35																			
Honour Courses:																									
Group A (Arts)	300	223	165	109	152	101	148	110																	
Group B (Arts)	626	360	344	167	225	105	172	84																	
Group C (Science)	77	9	62	5	34	4	36	4																	
Group D (Science)	81	38	64	25	53	23	36	15																	
Commerce and Finance	78	9	48	3	33	1	38	2																	
Special Students (Day-time)																									
SUB-TOTAL	1,654	879	1,507	780	1,256	646	480	215																	
SUB-TOTAL																									
NON-COLLEGIATE COURSES:																									
General Arts (Extension)																									
General Science (Extension)																									
Special Students (Day-time)																									
Diploma in Computing and Data Processing																									
SUB-TOTAL																									

III(C). FACULTY OF ARTS AND SCIENCE, BY ACADEMIC YEAR, COLLEGE AND GROUP (concluded)

Course	Regular Students														Proceeding to Graduate Degrees, Diplomas or Certs.				Special Students							
	Proceeding to First Degrees, Diplomas or Certificates														Full-time				Part-time							
	Full-time														Total				Part-time							
	Year 1		Year 2		Year 3		Year 4		Year 5		Total		T		W		T		W		T		W			
SUMMARY ST. GEORGE CAMPUS:																										
General Arts	579	333	1,167	710	1,099	635					2,845	1,678													2,845	1,678
General Science	260	53	289	76	240	53					789	182													789	182
Honour Courses:																										
Group A (Arts)	447	330	240	159	232	157	224	159			1,143	805													1,143	805
Group B (Arts)	1,096	635	567	265	368	169	299	135			2,330	1,204													2,330	1,204
Group C (Science)	193	21	142	11	85	8	69	8			489	48													489	48
Group D (Science)	169	55	135	42	84	28	72	23			460	148													460	148
Commerce and Finance	136	11	95	4	64	3	70	5			365	23													365	23
General Arts (Extension)											2,255	1,218													599	257
General Science (Extension)											90	9													40	3
Special Students (Day-time)																									272	83
Diploma Course											24	5													24	5
Total St. George Campus	2,880	1,438	2,635	1,267	2,172	1,053	734	330			8,421	4,088	2,345	1,227	24	5	272	83	820	353	11,882	5,756				
2. SCARBOROUGH COLLEGE:																										
General Arts	375	147	146	70	63	30					584	247													584	247
General Science	211	29	114	16	45	7					370	52													370	52
General Arts (Extension)											544	294													54	23
Special Students (Day-time)																									7	1
Total Scarborough Campus	586	176	260	86	108	37					954	299	544	294			7	1	58	24	1,563	618				
3. ERINDALE COLLEGE:																										
General Arts	99	42									99	42													99	42
General Science	52	5									52	5													52	5
General Arts (Extension)											235	127													20	9
Special Students (Day-time)																									4	4
Total Erindale College	151	47									151	47	235	127			24	13	24	13	410	187				
TOTAL ARTS AND SCIENCE	3,617	1,661	2,895	1,353	2,280	1,090	734	330			9,526	4,434	3,124	1,648	24	5	279	84	902	390	13,855	6,561				

III(D). FINAL REPORT ON ENROLMENT, 1967-1968, AS AT 1 DECEMBER 1967 SCHOOL OF GRADUATE STUDIES BY DEPARTMENTS, SUMMARY

F = Full-time; P = Part-time; T = Total; W = Women

Division	Ph.D.			Other D			Phil.M.			M.A.			M.Sc.						
	F	P	T	F	P	T	F	P	T	F	P	T	F	P	T				
	W	T	W	W	T	W	W	T	W	W	T	W	W	T	W				
Division I: The Humanities	527	153	48	12	3	1	48	26	6	3	492	210	128	72					
Division II: The Social Sciences	242	44	20	4	11	3	5	2	7	2	1	248	71	37	20				
Division III: The Physical Sciences	476	18	15	1															
Division IV: The Life Sciences	225	42	6	1								40	16						
TOTAL	1,470	257	89	18	11	3	8	3	55	28	7	3	780	297	165	92			
															196	17	5	2	
																167	49	11	6
																363	66	16	8

Division	M.A.Sc.			M.Eng.			Other M			Special			Total							
	F	P	T	F	P	T	F	P	T	F	P	T	F	P	T					
	W	T	W	W	T	W	W	T	W	W	T	W	W	T	W					
Division I: The Humanities							9	2	5	1	21	9	17	6	1,097	400	207	95	1,304	495
Division II: The Social Sciences							419	142	641	164	34	13	77	32	961	275	781	222	1,742	497
Division III: The Physical Sciences	22			41	1	57	17	2	1		24	2	34	2	1,027	40	134	5	1,161	45
Division IV: The Life Sciences							28	5	3		19	4	17	4	479	116	37	11	516	127
TOTAL	273	22		41	1	57	473	151	650	165	98	28	145	44	3,564	831	1,159	333	4,723	1,164

III(D). SCHOOL OF GRADUATE STUDIES BY DEPARTMENTS (continued)

Graduate Department	Ph.D.			Other D			Phil.M.			M.A.			M.Sc.		
	F		P	F		P	F		P	F		P	F		P
	T	W	T W	T	W	T W	T	W	T W	T	W	T W	T	W	T W
<i>Division I</i>															
Classical Studies	25	4	2 1				2	1	1	13	3	5	1		
East Asian St.	3	1					1			7	1				
English	125	39	16 5				13	8	2 1	158	77	59 32			
French L & L.	60	32	2 1 1				8	7		65	35	11 10			
Germanic L & L	26	10	1 1 1							20	10	6 5			
History	92	16	9 2				3	1	1	76	23	10 5			
History of Art	2	1					1	1		16	9	9 6			
Islamic Studies	2	1					1			1					
Italian & Hisp.	29	9	7				7	5		18	14	7 3			
Music	6					3 1				13	5	2 1			
Near East St.	7	2					1			10	2	1			
Philosophy	82	11	6				10	3	1 1	59	7	2			
Slavic L & L	19	6							1 1	13	11	7 5			
Drama	8						1			10	7	2 1			
Linguistics	4	2								6	2	1 1			
Medieval Studies	37	19	3 2							7	2	1 1			
SUB-TOTAL	527	153	48 12	3	1	3 1	48	26	6 3	492	210	128 72			

III(D). SCHOOL OF GRADUATE STUDIES BY DEPARTMENTS (continued)

Graduate Department	M.A.Sc.			M.Eng.			Other M			Special			Total			Total
	F	P	T	F	P	T	F	P	T	F	P	T	F	P	T	
	W	T	W	W	T	W	T	W	T	W	T	W	T	W	T	
<i>Division I</i>																
Classical Studies																
East Asian St.																
English																
French L & L																
Germanic L & L																
History																
History of Art																
Islamic Studies																
Italian & Hisp.																
Music																
Near East St.																
Philosophy																
Slavic L & L																
Drama																
Linguistics																
Medieval Studies																
SUB-TOTAL																

III(D). SCHOOL OF GRADUATE STUDIES BY DEPARTMENTS (continued)

Graduate Department	Ph.D.						Other D						Phil.M.						M.A.						M.Sc.											
	F		P		T W		F		P		T W		F		P		T W		F		P		T W		F		P		T W							
	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W						
<i>Division II</i>																																				
Anthropology	19	4	4															3	2	1				21	7	1										
Business	100	25	3	2														59	25	7	6			59	25	7	6									
Educational Theory	12	1	2															30	5	6				30	5	6										
Geography																																				
Law																																				
Library Science	80	6	9	2														11	3	5	2			98	14	10	3									
Political Economy	31	8	2															3						40	20	13	11									
Social Work																		1																		
Sociology																																				
Urban & Regional Planning																																				
Criminology																																				
Culture & Technology																																				
Ind. Relations																																				
Russian & E. E. St.																																				
Urban Studies																																				
Policy Analysis																																				
International Studies																																				
SUB-TOTAL	242	44	20	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	248	71	37	20	7	2	1	1	1	1				

III(D). SCHOOL OF GRADUATE STUDIES BY DEPARTMENTS (continued)

Graduate Department	M.A.Sc.			M.Eng.			Other M			Special			Total					
	F	T	P	F	T	P	F	T	P	F	T	P	F	T	P			
	T	W	T	T	W	T	T	W	T	T	W	T	T	W	T			
<i>Division II</i>																		
Anthropology							2	2	2	2	2	1	45	15	8	1	53	16
Business				130		3				2			130		5		135	
Educational Theory				80	26	583	122	17	4	58	22		256	80	651	152	907	232
Geography							1	1					43	7	8		51	7
Law				6	1					1	1		6	1	1	1	7	2
Library Science						49	39			6	6				55	45	55	45
Political Economics				1*				9	3	2			191	23	21	5	212	28
Social Work				173	111	6	3			1	1		184	114	12	6	196	120
Sociology								3	3	5	1		75	31	20	12	95	43
Urban & Regional Planning				29	4			2					31	4			31	4
Criminology																		
Culture & Technology																		
Ind. Relations																		
Russian & E. E. St.																		
Urban Studies																		
Policy Analysis																		
International Studies																		
SUB-TOTAL				419	142	641	164	34	13	77	32	961	275	781	222	1,742	497	

*Including Diploma in Economics Development in the Department of Political Economy

III(D). SCHOOL OF GRADUATE STUDIES BY DEPARTMENTS (continued)

Graduate Department	Ph.D.			Other D.			Phil.M.			M.A.			M.Sc.			
	T	W	P	T	W	P	T	W	P	T	W	P	T	W	P	
<i>Division III</i>	30															
Aerospace Studies	13															
Architecture	49															
Astronomy	94															
Chemical Engineering	22															
Chemistry	20															
Civil Engineering	32															
Computer Science	12															
Electrical Engineering	16															
Geology	55															
Industrial Engineering	25															
Mathematics	20															
Mechanical Engineering	88															
Met. & Mat. Science	2															
Physics	2															
Bio-Med. El.	2															
Earth Sciences	2															
SUB-TOTAL	476	18	15	1									196	17	5	2

III(D). SCHOOL OF GRADUATE STUDIES BY DEPARTMENTS (continued)

Graduate Department	M.A.Sc.			M.Eng.			Other M			Special			Total			
	F		P	F		P	F		P	F		P	F		P	
	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	
<i>Division III</i>	26	1	1	2	17	2	1	1	7	58	10	68	17	2	1	18
Aerospace Studies																
Architecture					17	2	1	1		17	4	21	27	4	1	31
Astronomy	40			10				2	1	89	12	101	161	21	2	182
Chemistry																
Civil Engineering	46	8	16	14				1	3	85	1	86	161	1	2	162
Computer Science																
Electrical Engineering	85	9	4	25				3	14	30	6	36	124	3	49	173
Geology	1							1		20	2	21	43	2	4	45
Industrial Engineering	27	2														
Mathematics																
Mechanical Engineering	32	2	20	6				9	2	100	4	104	100	4	7	107
Met. & Mat. Science	16							1		78	14	92	38			40
Physics								2								
Bio-Med. El.								5	2	157	3	160	157	3	3	160
Earth Sciences																
SUB-TOTAL	273	22	41	57	17	2	1	24	2	1,027	40	1,161	1,027	40	134	5

III(D). SCHOOL OF GRADUATE STUDIES BY DEPARTMENTS (concluded)

Graduate Department	Ph.D.			Other D.			Phil.M.			M.A.			M.Sc.		
	F		P	F		P	F		P	F		P	F		P
	T	W	T W	T	W	T W	T	W	T W	T	W	T W	T	W	T W
<i>Division IV</i>															
Anatomy	2		1												
Biochemistry	23		7												
Botany	25		5	1											
Dentistry															
Food Sciences															
Forestry	3														
Hygiene	12		4												
Med. Biophysics	16		2												
Path. Chemistry	2		1												
Pathology															
Pharmacology	13		2	1											
Pharmacy	4		1												
Physiology	11		2												
Psychology	39		8	4	1										
Surgery															
Zoology	75		9												
Great Lakes Ins.															
Med. Science															
SUB-TOTAL	295	42	6	1						40	16		167	49	11

III(D). SCHOOL OF GRADUATE STUDIES BY DEPARTMENTS (continued)

Graduate Department	M.A.Sc.			M.Eng.			Other M			Special			Total			
	F	P	T	F	P	T	F	P	T	F	P	T	F	P	T	
	T	W	W	T	W	W	T	W	W	T	W	W	T	W	W	
<i>Division IV</i>																
Anatomy													7	2	1	8
Biochemistry									5	2			43	14	5	48
Botany							2	1					51	15	1	52
Dentistry				5	1	2							5	1	2	7
Food Sciences													4	1		4
Forestry				13	1		2	1	1	1	1		18	2	1	19
Hygiene									5	2	4	1	41	16	9	50
Med. Biophysics							1	1					38	4	3	41
Med. Chemistry							1						6	2		6
Pathology													5			5
Pharmacology							5	1	1	1	3		29	5	3	32
Pharmacy				10	3		1						15	4		15
Physiology							1	1	1	1			28	5	1	29
Psychology									3				79	24	7	86
Surgery						1							1		1	1
Zoology							1	1	1				110	21	3	113
Great Lakes Ins.																
Med. Science																
SUB-TOTAL				28	5	3	19	4	17	4	37	11	479	116	37	516

III(E). FINAL REPORT ON ENROLMENT, 1967-1968
 ENROLMENT IN THE MULTI-FACULTY COLLEGES
 AS AT 1 DECEMBER 1967

The enrolment of the multi-faculty colleges (New College and Innis College) also includes the following students registered in professional faculties.

Professional Faculty	New College		Innis College	
	Total	Women	Total	Women
Applied Science and Engineering	200	1	33	1
Architecture, Urban and Regional Planning and Landscape Architecture	27	1	2	
Business				
Child Study				
Dentistry	13	2	3	
Dental Hygiene			3	3
Food Sciences	10	9	16	16
Forestry	10		9	1
Graduate Studies	4			
Hygiene				
Law	2			
Library Science				
Music	19	4	7	4
Nursing	9	9	17	17
Pharmacy	38	17	10	5
Pre-Medicine	87	18	21	5
Medicine	17	2	1	1
Physical and Occupational Therapy	10	10	7	7
Physical and Health Education	9	8	13	10
Social Work				
TOTAL Professional Faculty Enrolment	455	81	142	70
TOTAL Arts and Science Enrolment	1,119	422	378	114
TOTAL College Enrolment	1,574	503	520	184

IV. REPORT ON DEGREES, DIPLOMAS, AND CERTIFICATES AWARDED, 1967-1968

Degree, Diploma or Certificate	Total	Women
HONORARY DEGREES		
Doctor of Laws.....	8	2
Doctor of Letters.....	3	
GRADUATE DEGREES AND DIPLOMAS		
Doctor of Philosophy:		
Classics.....	1	
English.....	12	1
Germanic Languages and Literature.....	2	
History.....	6	1
Philosophy.....	5	1
Slavic Languages and Literatures.....	3	1
Anthropology.....	2	1
Educational Theory.....	2	2
Geography.....	3	
Political Economy.....	8	
Sociology.....	1	
Aerospace Studies.....	2	
Astronomy.....	6	1
Chemical Engineering.....	5	
Chemistry.....	26	3
Civil Engineering.....	3	
Computer Science.....	2	
Electrical Engineering.....	8	
Industrial Engineering.....	2	
Mathematics.....	14	
Mechanical Engineering.....	1	
Metallurgy and Materials Science.....	5	
Physics.....	17	
Biochemistry.....	1	1
Botany.....	3	
Hygiene.....	1	
Medical Biophysics.....	4	
Pathology.....	3	
Physiology and Banting and Best Research.....	1	
Psychology.....	7	1
Zoology.....	6	1
SUB-TOTAL Ph.D.....	162	14
Doctor of Education.....	9	3
Doctor of Social Work.....	3	
Master of Philosophy:		
Classics.....	2	1
Drama.....	1	
East Asian Studies.....	1	1
English.....	2	1
History.....	2	
Italian and Hispanic Languages and Literatures.....	2	2
Anthropology.....	2	1
Philosophy.....	4	
Political Economy.....	1	
SUB-TOTAL Phil.M.....	17	6
Master of Arts:		
Classics.....	9	3
Drama.....	5	2
East Asian Studies.....	2	
English.....	106	49

**IV. REPORT ON DEGREES, DIPLOMAS, AND CERTIFICATES AWARDED,
1967-1968 (continued)**

Degree, Diploma or Certificate	Total	Women
GRADUATE DEGREES AND DIPLOMAS (continued)		
French Language and Literature.....	42	21
Germanic Languages and Literature.....	12	5
History.....	47	13
History of Art.....	7	4
Islamic Studies.....	2	
Italian and Hispanic Languages and Literatures.....	8	6
Linguistics.....	1	1
Medieval Studies.....	3	2
Music.....	4	2
Near Eastern Studies.....	6	2
Philosophy.....	19	4
Slavic Languages and Literatures.....	3	2
Anthropology.....	22	10
Educational Theory.....	11	4
Geography.....	9	
Political Economy.....	57	3
Sociology.....	17	9
Psychology.....	21	6
SUB-TOTAL M.A.....	413	148
Master of Science:		
Astronomy.....	6	3
Chemistry.....	31	5
Computer Science.....	9	1
Geology.....	2	
Mathematics.....	27	
Physics.....	30	
Anatomy.....	3	
Biochemistry.....	10	6
Botany.....	6	1
Food Sciences.....	4	4
Hygiene.....	10	5
Medical Biophysics.....	3	
Pathological Chemistry.....	2	
Pathology.....	3	1
Pharmacology.....	2	
Physiology and Banting and Best Research.....	6	2
Zoology.....	11	3
SUB-TOTAL M.Sc.....	165	31
Master of Applied Science:		
Aerospace Studies.....	16	
Chemical Engineering.....	17	
Civil Engineering.....	18	
Electrical Engineering.....	37	
Geology.....	1	
Industrial Engineering.....	9	
Mechanical Engineering.....	12	
Metallurgy and Materials Science.....	6	
SUB-TOTAL M.A.Sc.....	116	
Master of Engineering:		
Aerospace Studies.....	1	
Civil Engineering.....	4	

**IV. REPORT ON DEGREES, DIPLOMAS, AND CERTIFICATES AWARDED,
1967-1968 (continued)**

Degree, Diploma or Certificate	Total	Women
GRADUATE DEGREES AND DIPLOMAS (continued)		
Electrical Engineering	1	
Geology	1	
Mechanical Engineering	2	
SUB-TOTAL M.Eng.	9	
Master of Architecture	12	
Master of Business Administration	65	
Master of Education	226	39
Master of Laws	2	
Master of Library Science	8	7
Master of Music	5	1
Master of Social Work	84	49
Master of Science in Dentistry	7	
Master of Science in Forestry	2	
Master of Science in Pharmacy	11	3
Master of Science in Urban and Regional Planning	9	1
SUB-TOTAL Other Graduate Degrees	431	100
TOTAL GRADUATE DEGREES.	1,325	302
Diploma in Advanced Social Work	2	
Diploma in Anaesthesia	7	
Diploma in Bacteriology	14	7
Diploma in Business Administration	40	1
Diploma in Child Study	11	5
Diploma in Computing and Data Processing	14	2
Diploma in Dental Public Health	10	1
Diploma in Hospital Administration	11	1
Diploma in Industrial Health	1	1
Diploma in Medical Radiology	12	
Diploma in Nutrition	1	1
Diploma in Operations Research	3	
Diploma in Oral Surgery and Anaesthesia	1	
Diploma in Orthodontics	6	
Diploma in Paedodontics	2	
Diploma in Periodontics	1	
Diploma in Public Health	18	1
Diploma in Resource Management	5	
Diploma in Russian and East European Studies	3	
Diploma in Speech Pathology and Audiology	14	14
Diploma in Urban and Regional Planning	3	
Certificate in Public Health	2	
Teacher's Certificate in Physical Therapy	2	1
Teacher's Certificate in Occupational Therapy	1	1
SUB-TOTAL Graduate Diplomas and Certificates.	184	36
BACHELOR AND FIRST PROFESSIONAL DEGREES AND DIPLOMAS		
Bachelor of Arts (Honour Courses):		
Anthropology	22	16
Classics	6	2
Latin (English or Italian Option)	1	
Latin (French or Greek Option)	7	6
English Language and Literature	83	53
French Language and Literature	9	5
Geography	19	7
Modern History	81	30
Modern History (Asian Studies)	1	
Modern History (English Option)	10	9

**IV. REPORT ON DEGREES, DIPLOMAS, AND CERTIFICATES AWARDED,
1967-1968 (continued)**

Degree, Diploma or Certificate	Total	Women
GRADUATE DEGREES AND DIPLOMAS (continued)		
Modern History and Modern Languages.....	2	2
Modern Languages and Literatures.....	105	53
East Asian Studies.....	2	1
Near Eastern Studies.....	1	1
Slavic Languages and Literatures.....	3	2
Fine Art.....	27	23
Music.....	3	2
Philosophy.....	11	3
Philosophy (English or History).....	4	1
Political Science and Economics.....	71	7
Psychology.....	32	19
Sociology.....	28	21
SUB-TOTAL B.A. (Honour Courses).....	528	263
Bachelor of Arts General Arts Course.....	1,114	645
Bachelor of Arts General Arts Course (Extension).....	226	88
Bachelor of Arts Pass Course.....	4	3
SUB-TOTAL B.A. (General Course).....	1,344	736
Bachelor of Commerce.....	71	7
Bachelor of Science (Honour Courses):		
Mathematics and Physics.....	47	2
Mathematics and Chemistry.....	2	
Physics and Chemistry.....	2	
Chemistry.....	22	6
Life Sciences.....	26	9
Geology.....	2	
Biological and Medical Sciences.....	25	7
SUB-TOTAL B.Sc. (Honour Courses).....	126	24
Bachelor of Science General Science Course.....	272	60
Bachelor of Applied Science:		
Chemical Engineering.....	74	1
Civil Engineering.....	56	
Electrical Engineering.....	69	1
Engineering Science.....	41	1
Geological Engineering.....	4	
Industrial Engineering.....	38	
Mechanical Engineering.....	53	
Metallurgy and Materials Science.....	6	
SUB-TOTAL B.A.Sc.....	341	3
Bachelor of Architecture.....	47	2
Doctor of Dental Surgery.....	128	8
Bachelor of Science in Dentistry.....	2	1
Bachelor of Science (Food Sciences).....	15	14
Bachelor of Science in Forestry.....	12	
Bachelor of Laws.....	137	9
Bachelor of Library Science.....	191	154
Doctor of Medicine.....	177	26
Bachelor of Science in Medicine.....	4	
Bachelor of Science (Art as Applied to Medicine).....	2	1

**IV. REPORT ON DEGREES, DIPLOMAS, AND CERTIFICATES AWARDED,
1967-1968 (concluded)**

Degree, Diploma or Certificate	Total	Women
Bachelor of Music.....	24	12
Bachelor of Science in Nursing.....	82	82
Bachelor of Science in Pharmacy.....	92	29
Bachelor of Physical and Health Education.....	72	37
Bachelor of Social Work.....	1	
TOTAL Bachelor and First Professional Degrees.....	3,668	1,468
Artist-Diploma (Music).....	5	4
Licentiate Diploma (Music).....	3	1
Diploma in Dental Hygiene.....	42	42
Diploma in Physical and Occupational Theory.....	89	89
Certificate in Business.....	94	6
Certificate in Hospital Nursing Service.....	4	4
Certificate in Nursing Education.....	3	3
Certificate in Public Health Nursing, Advanced.....	15	15
Certificate in Public Health Nursing, General.....	92	92
Certificate in Public Administration.....	17	1
SUB-TOTAL Diploma and Certificate Courses.....	364	257
Summary		
DEGREES		
Honorary.....	11	2
Graduate.....	1,325	302
Undergraduate.....	3,668	1,468
TOTAL DEGREES.....	5,004	1,772
DIPLOMAS AND CERTIFICATES		
Graduate.....	184	36
Undergraduate.....	364	257
TOTAL DIPLOMAS AND CERTIFICATES.....	548	293
GRAND TOTAL.....	5,552	2,065

June 26, 1968

V. GEOGRAPHICAL DISTRIBUTION OF STUDENTS,
WINTER SESSION 1967-1968, AS AT 1 DECEMBER 1967
SUMMARY

	Full-time		Part-time		Total		Percent	
	No.	%	No.	%	No.	%	1966-	1965-
							1967	1966
CANADA:								
Metropolitan Toronto	13,897	63.69	4,658	74.32	18,555	66.06	65.83	65.33
Other Ontario	5,439	24.93	1,396	22.28	6,835	24.34	24.99	25.65
SUB-TOTAL, Ontario	19,336	88.62	6,054	96.60	25,390	90.40	90.82	90.98
Other Canada	832	3.81	98	1.57	930	3.31	3.33	3.34
SUB-TOTAL, Canada	20,168	92.43	6,152	98.17	26,320	93.71	94.15	94.32
AFRICA	77	0.35	2	0.03	79	0.28	0.34	0.34
ASIA	610	2.80	32	0.51	642	2.29	1.96	1.84
EUROPE	164	0.75	17	0.27	181	0.64	0.61	0.65
NORTH AMERICA (Excl. Canada)	597	2.73	36	0.57	633	2.25	2.09	2.03
SOUTH AMERICA CENTRAL AMERICA AND MEXICO	44	0.20	4	0.06	48	0.17	0.15	0.11
	8	0.04	1	0.02	9	0.03	0.01	0.01
OCEANIA	30	0.14	3	0.05	33	0.12	0.15	0.14
WEST INDIES	123	0.56	20	0.32	143	0.51	0.54	0.56
SUB-TOTAL, Foreign Students	1,653	7.57	115	1.83	1,768	6.29	5.85	5.68
TOTAL	21,821	100.00	6,267	100.00	28,088	100.00	100.00	100.00

REPORT OF THE EXECUTIVE VICE-PRESIDENT (NON-ACADEMIC)

It has become a policy to reprint in the *Varsity Graduate* the annual financial statements, together with the auditors' report, so that the alumni and other interested parties may be informed. Such a report is a complement to the annual *President's Report*.

We recognize that the mere publication of formal financial reports may fall far short of our objective of conveying information. Presentation of accounts for a university differ in format from those of a private organization. A university is the recipient of a multitude of gifts, grants and endowments in addition to its general operating revenues. More often than not, such benefactions are made for restrictive purposes, and the University must keep careful track of the funds to see that they are spent as directed by the donor. These factors lead to the adoption of "fund accounting" and contributes to the length if not the complexity of the financial statements.

To assist our readers I offer in capsule form certain statistics and comments on the financial highlights of the year. These summaries and comments relate to the University of Toronto as a whole, inclusive of Scarborough and Erindale Colleges. The formal financial statements commencing on page 97 offer more analytical and detailed information.

Provincial Support

The year 1967-68 marked the initial year under a new system of government support, known as "provincial formula operating grants." In late 1966 the federal government abandoned its practice of providing direct financial support for university operating costs in favour of a new pattern of direct fiscal transfer to the provinces. Commencing in 1967 all universities of Ontario received provincial operating grants under a formula which was devised by the Committee on University Affairs, an advisory committee reporting to the Minister of University Affairs, working in collaboration with the Committee of Presidents of Universities of Ontario.

Through the efforts of the joint committees, it proved to be possible to establish a simple formula for determining operating grants on an objective basis as a function of (i) enrolments in various categories, (ii) weighting numbers reflecting average costs, faculty by faculty, and (iii) a dollar multiplier, or unit value, which, once fixed, could determine all grants and expenditures. Formula income was defined to cover all costs of maintenance, book purchases for libraries and all purchases of equipment (except initial equipping of new buildings), as well as ordinary costs of operation. Most importantly this system, while acknowledging average levels of cost in different parts of the University, does not, in fact, constrain the apportionment of the University budget to various faculties and departments.

The advantages claimed for the formula system are:

1. Resulting grants are demonstrably equitable;
2. University autonomy is clearly preserved;
3. Government is provided with a means of foreseeing and controlling, on a consistent basis, the general magnitude of university and college grants;
4. There is a maximum incentive for the universities to be efficient and to manage their affairs well: any notion that improvement in efficiency would lead to a corresponding reduction in support is offset and long-range planning of university operations is greatly facilitated;
5. Rather than limiting initiative or imposing any "dead head of uniformity" the formula system gives freedom to individual institutions to order priorities and take necessary decisions;
6. Private donors are assured that gifts for operating purposes are an added resource to the University and not a substitute for public support.

This latter point has frequently been stressed by Dr. C. T. Bissell in messages to the Alumni and friends of the University. The annual Varsity Appeal giving is not reflected in the financial statements herein, but is the subject of separate fund accounting and reporting. Varsity Appeal funds are used for special projects designed for enrichment of University life.

Any formula is subject to shortcomings, and this operating formula cannot provide for all requirements. Special extra-formula grants are paid to the newer universities and colleges (e.g. Scarborough and Erindale) and for major new faculty developments.

One serious defect in this new provincial grant formula strikes at the financial stability of our church-oriented federated colleges; Victoria, Trinity and St. Michael's. Longstanding policy in Ontario prevents direct provincial grants being made to church-related institutions. After careful study and following the withdrawal of federal grants, it proved possible for the province to substitute equivalent special support in line with the level of federal grants previously enjoyed by the federated colleges. However, this level of support is inadequate to finance these colleges which have been an integral part of the University of Toronto for more than half a century. This serious problem is under study by all concerned.

Enrolment Summary

Because of the nature of the operating grant formula any presentation of income should be related to enrolment. Commencing in the year 1967-68 our operating grant under the provincial formula is arrived at by converting our total enrolment into basic income units (this is done by applying the weight allotted to each type of enrolment, e.g. one for Arts, two for Forestry), multiplied by the value of the basic income unit (\$1,320 in 1967-68) less the "standard fees" applicable to the University's enrolment.

Half of the increase in undergraduate enrolment at the University of Toronto is accounted for by Scarborough and Erindale. Full-time undergraduate enrolment on the St. George Campus is very close to its plateau. Erindale enrolled its initial freshman year of 151 students. Scarborough College, in its third year of existence, reached a full-time population of 961, up from 502 in the previous year and 191 in 1965. The major increase in full-time enrolment came at the level of graduate work, with a 30 per cent increase in that area. The total population on all three campuses, 21,821 full-time and 6,267 part-time students, represents an 11.2 per cent increase over the previous year.

Table II represents a very condensed version of the operating picture; greater details will be found on Statement 2 of the financial statements.

The substantial increase of 38 per cent in government grants enabled the University to complete the year with a small surplus of \$96,000. This surplus helped to shrink the accumulated deficit which developed in the year 1965 in the amount of \$849,000 and now stands as per the balance sheet at a deficit of \$581,000.

TABLE I

University of Toronto	1966-67	1967-68	Increase
<i>Full-time students</i>			
Undergraduate	15,046	16,279	1,233
Graduate	4,246	5,542	1,296
	<u>19,292</u>	<u>21,821</u>	<u>2,529</u>
<i>Part-time students</i>			
Undergraduate	4,685	4,854	169
Graduate	1,301	1,413	112
	<u>5,986</u>	<u>6,267</u>	<u>281</u>
GRAND TOTAL, University of Toronto	25,278	28,088	2,810
Total enrolment for Ontario universities	1966-67	1967-68	
Full-time	62,851	73,805	
Part-time	38,161	46,325	
	<u>101,012</u>	<u>120,130</u>	

TABLE II
UNIVERSITY OF TORONTO
SUMMARY OF OPERATING INCOME AND EXPENDITURES
(in thousands of dollars)

	1966-67		1967-68	
	\$M	%	\$M	%
Income				
Government grants	39,598	63.1	54,899	66.0
Student fees	8,774	14.1	9,799	11.8
Other income	4,228	6.8	5,052	6.2
Assisted research	10,052	16.0	13,310	16.0
	<u>62,652</u>	<u>100.0</u>	<u>83,060</u>	<u>100.0</u>
Expenses				
Operating	45,630	75.1	59,729	74.3
Assisted research	10,051	16.5	13,310	16.5
	<u>55,681</u>	<u>91.6</u>	<u>73,039</u>	<u>90.8</u>
NET OPERATING INCOME	5,103	8.4	7,372	9.2
Less other expenses including pension and debt funding and major maintenance	5,075	8.3	7,276	9.1
NET INCOME	\$ 28	0.1	96	0.1

Capital Expansion Programme

During the year 1967-68 the University expended on its capital programme for all three campuses, the amount of \$31,931,600, as follows:

Scarborough Campus	\$1,370,200
Erindale Campus	1,400,800
St. George Campus	
Medical Sciences Bldg.	16,698,100

New College II	2,318,100
McLaughlin Planetarium	1,665,500
Library for Humanities and Social Sciences	854,000
Sidney Smith Hall	644,100
Physics Building	327,300
Electrical Building	310,600
Banting Institute	209,100
Central Power Plant	179,700
Innis College	133,400
North West Campus properties	1,854,600
All other projects	3,966,100
	<u>\$31,931,600</u>

Work continued on buildings already under way: the McLaughlin Planetarium, married student housing at Bay and Charles streets, the second phase of New College and the Medical Sciences Building being the major projects. At the end of the year the easterly portion of the Medical Sciences Building had been sufficiently completed to allow partial occupancy so that the old Medical Building could be vacated and demolished and construction of the Auditorium wing of the new building commenced on the cleared site.

The renovation of several buildings commenced, either to provide additional accommodation for staff and students or to improve conditions within the buildings. The premises at 63 St. George Street, owned by Knox College, have been leased by the University and are undergoing extensive renovation to provide additional space for Innis College until its projected building is completed. The third and fourth floors of the former Borden Garage were renovated to accommodate the Department of East Asian Studies formerly located in 215 Huron Street. With the move of East Asian Studies to these new quarters it has been possible to provide an adequate area at 215 Huron Street for the Data Processing Department of the University which was formerly located in the basement of Simcoe Hall. During the year a contract was awarded for a major renovation of the St. George Apartments at 321 Bloor Street West, the new St. George Graduate Residence. Conditions in Sidney Smith Hall during the summer months have been described as virtually intolerable. The installation of air-conditioning equipment is now under way and by the summer of 1969 the work will be completed and working conditions in the building will be vastly improved. The former Ontario Research Foundation building at 121 St. Joseph Street has been renovated to provide additional space for the Faculty of Medicine and the building will continue in this use until the final completion of the Medical Sciences building and less intensively until the research areas projected for the teaching hospitals have been provided.

The working drawings for the Humanities and Social Sciences Library were completed during the year, tenders called and the contract let shortly after the year end. It is a source of gratification that this long-delayed project is now under way.

To meet the requirements of the major buildings now under construction and those contemplated for future years, a major expansion of our utilities services had been launched and is being carried out over a period of up to ten years. During the year under review contracts were awarded to replace two of the boilers in the Central Power Plant with others of greatly increased capacity; portions of the electrical and steam distribution systems have been increased in capacity or reinforced; and a new 300-foot chimney stack, the tallest structure on the campus, has been constructed.

Planning at Scarborough College for an extension to the existing building to provide additional academic space, an athletic area, additional dining facilities and a residence is in process.

At Erindale College the development of the permanent buildings is now under way. Contracts have been let for site development and for the first phase of the buildings, the Laboratory Research Block, and for the major components of the utilities system.

TABLE III
BREAKDOWN OF 1967-1968 ENROLMENT

Faculty or Division	Full-time			Part-time			Total Students
	Under-graduate	Graduate	Total	Under-graduate	Graduate	Total	
Arts and Science							
St. George Campus							
Constituent Colleges	3,620		3,620	35		35	3,655
Federated Colleges	4,894		4,894	19		19	4,913
Non-collegiate Courses	179	24	203	3,111		3,111	3,314
TOTAL, St. George	8,693	24	8,717	3,165		3,165	11,882
Scarborough College	961		961	602		602	1,563
Erindale College	151		151	259		259	410
TOTAL, Arts and Science	9,805	24	9,829	4,026		4,026	13,855
Applied Science and Engineering	2,057	6	2,063	8		8	2,071
Architecture	259	4	263				263
Business		64	64		197	197	261
Child Study		16	16		12	12	28
College of Education	173	703	876				876
Dentistry	583	41	624	5	7	12	636
Food Sciences	94		94	7		7	101
Forestry	133	5	138				138
Hygiene		68	68		28	28	96
Law	422		422				422
Library Science		192	192		1	1	193
Medicine	1,276	846	2,122	5	1	6	2,128
Music	266		266	12		12	278
Nursing	399		399	118		118	517
Pharmacy	460		460	12		12	472
Physical and Health Education	352		352				352
Social Work		9	9		8	8	17
University Extension				661		661	661
Ontario Institute for Studies in Education		256	256		651	651	907
	16,279	2,234	18,513	4,854	905	5,759	24,272
Graduate Studies		3,308	3,308		508	508	3,816
TOTAL	16,279	5,542	21,821	4,854	1,413	6,267	28,088
College of Education	173	703	876				876
OISE		256	256		651	651	907
	173	959	1,132		651	651	1,783
TOTAL, excluding College of Education and OISE	16,106	4,583	20,689	4,854	762	5,616	26,305
Corresponding totals (net) for 1966-1967	14,874	3,586	18,460	4,685	713	5,398	23,858

Of major significance to the future of the capital expansion programme of the University of Toronto, both on the St. George Campus and at the Scarborough and Erindale Campuses, was the advice received from the Department of University Affairs that because of the "tightness" of capital funds in face of greatly expanded demands for capital purposes, the amount of capital available in 1968-69 to the fourteen Ontario universities would be limited to \$125,000,000. At the same time, retroactive to June 30, 1964, the Department of University Affairs increased its financial support for most types of projects, for total expenditures from that date in excess of

TABLE IV
 1967-68 STUDENT AID FROM UNIVERSITY AND ALL KNOWN OUTSIDE SOURCES
 (\$000 omitted)

	University		Faculty/College		Outside Groups		Governments		Total	
	Value	Awards	Value	Awards	Value	Awards	Value	Awards	Value	Awards
<i>Undergraduate:</i>										
Scholarships/Prizes	\$129.8	216	\$ 371.2	1,224	\$143.0	307	\$ 600.7	1,136	\$ 1,244.7	2,883
Bursaries/Grants	79.7	428	140.0	654	84.2	192	3,087.9	5,862	3,391.8	7,136
Loans	3.2	17	32.9	111	8.4	21	3,543.9	6,390	3,588.4	6,539
TOTAL	\$212.7	661	\$ 544.1	1,989	\$235.6	520	\$ 7,232.5	13,388	\$ 8,224.9	16,558
<i>Graduate:</i>										
Scholarships/Fellowships	\$ 10.4	6	\$ 682.0	350	\$178.3	79	\$ 2,399.6	2,194	\$ 3,270.3	2,629
Bursaries/Grants	1.4	6	20.2	56	1.7	3	230.0	425	253.3	490
Loans	2.4	11	8.2	37	22.6	21	427.6	728	460.8	797
TOTAL	\$ 14.2	23	\$ 710.4	443	\$202.6	103	\$ 3,057.2	3,347	\$ 3,984.4	3,916
GRAND TOTAL	\$226.9	684	\$1,254.5	2,432	\$438.2	623	\$10,289.7	16,735	\$12,209.3	20,474
<i>Year 1966-67</i>										
Undergraduate	\$270.2	899	\$ 566.2	1,917	\$209.5	519	\$ 3,268.1	7,051	\$ 4,314.0	10,386
Graduate	39.7	87	653.7	372	117.0	72	2,028.4	1,972	2,838.8	2,503
	\$309.9	986	\$1,219.9	2,289	\$326.5	591	\$ 5,296.5	9,023	\$ 7,152.8	12,889

\$10,000,000, from 85 per cent to 95 per cent. The University of Toronto received for the period April 1968 to March 1969 allocations of \$8,695,000 for the completion of projects under way and of \$10,515,000 to allow the initiation of new projects. With this limited support it was necessary to postpone projects, including Innis College and the Campus Centre, which it had been hoped could commence in late 1967-68. Our ability to proceed with our proposed construction programme will be dependent upon the ability of the province to provide the required financial support and it must now be recognized that our progress will be less rapid than had been expected and is desirable.

Student Financial Aid

It is gratifying to report that in 1967-68 significant improvement took place in the availability of financial assistance for university students. The value of awards to University of Toronto students increased 71 per cent from the previous year to a total of \$12,209,306: the number of awards - 20,474 - was 59 per cent greater and the number of students assisted - 11,590 - was 50 per cent greater than in 1966-67.

The form of assistance was also slightly better for the students concerned: the repayable loan portion decreased fractionally from 34.1 per cent to 33.2 per cent and scholarships and fellowships dropped from 46.6 per cent to 36.9 per cent but bursaries and grants, related directly to financial need, increased from 19.3 per cent to 29.9 per cent.

The improvements were greatest at the undergraduate level where the total increased by \$3,910,906, or 91 per cent. Aid to graduate students was 40 per cent above its former level.

The additional funds came very largely from the Province of Ontario Student Aid Programme (POSAP), which provided \$6,993,319 in loans and grants to our students in 1967-68. Not only was this total more than double the \$3,170,203 provided in the initial year of operation, 1966-67, but the ratio of grants to loans - 45/55 per cent - was a great unimprovement over the previous 27/73 per cent.

As in the past the statistics gathered by the Research and Statistics Division of the Office of Student Awards "are confined to awards and assistance having no commitment other than full-time study normally leading to a degree or diploma: teaching assistantships, research grants and other monies disbursed, usually to advanced students at the discretion of the academic department concerned, are not covered."

It is not possible to determine what proportion of student costs is now covered by "financial aid" from outside sources but the number of students assisted is now equivalent to 53 per cent of the full-time enrolment, at both graduate and undergraduate levels. The average value per student aided is \$953 for undergraduates and \$1,342 for graduate students, and therefore a very significant part of their total costs.

A. G. RANKIN

AUDITORS' REPORT

To the Governors of the University of Toronto

We have examined the balance sheet of the University of Toronto as at June 30, 1968 and the statement of current operating income and expense and net income or deficit carried forward, statement of capital trust funds to be expended on building programme, statement of general endowment in capital assets, statement of source and application of capital funds and summary of trust and endowment funds for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion these financial statements, read in conjunction with the notes thereto, present fairly the financial position of the University as at June 30, 1968 and the results of its operations for the year then ended, in accordance, in all material respects, with accounting principles generally accepted for universities. These principles were applied on a basis consistent with that of the preceding year; as explained in note 7 to the financial statements, however, certain expense provisions are in part dependent on the funds available.

CLARKSON, GORDON & Co.
Chartered Accountants

Toronto, Canada
October 17, 1968

UNIVERSITY OF TORONTO, NOTES TO FINANCIAL STATEMENTS YEAR ENDED 30 JUNE 1968

1. The financial statements do not include the income or expense of the following related organizations, nor their assets and liabilities (except to the extent that net assets held for The College of Education and the Parking Authority are included in current operating funds, the land and buildings used by certain of the following organizations are included in the capital funds section of the balance sheet and securities owned by them are held for safekeeping), as the net assets and results of operations of these organizations are held to further the continuing activities of their respective operating areas: The College of Education, University of Toronto; Connaught Medical Research Laboratories; Hart House; Insulin Committee; Royal Conservatory of Music of Toronto; Students' Administrative Council; Sunnybrook Hospital, University of Toronto Clinic; University of Toronto Athletic Association; University of Toronto Parking Authority; University of Toronto Press; University of Toronto Women's Athletic Association.

The total assets of the above organizations not reflected in the accompanying balance sheet amounted to \$25,359,000 at 30 June 1968 (1967: \$26,479,000).

In addition, the University acquired the lands and buildings of Sunnybrook Hospital on 1 October 1966, for the sum of \$1, to be used in conjunction with the Faculty of Medicine as a teaching hospital. The hospital is leased to and operated by Sunnybrook Hospital, a separate corporation having its own Board of Trustees. Its assets and liabilities and income and expense are not included in the University's financial statements.

2. Investments owned by the University are shown on the balance sheet at amortized cost plus accrued interest, with the following exception: When investments held for endowed and pooled expendable trust funds are sold to permit re-investment in other approved securities, any profit or loss on sale is amortized according to the maturity dates of the securities sold. The unamortized balance is included with the book value of investments. Certain investments held for specific funds are shown at cost or values assigned at acquisition less amortization. Investments held for sinking funds include \$4,117,000 par value of University of Toronto debentures (1967: \$3,707,000).

3. The book values of buildings and equipment at St. George Campus are recorded on the basis of estimated replacement cost, as determined at 30 June 1967, by University officials for the triennial insurance valuation with subsequent additions at cost. Land continues to be valued substantially at cost.

4. The accumulated amount of 30-year debentures issued to the Ontario Universities Capital Aid Corporation to finance capital expenditures is as shown in table 1. These debentures are payable in equal annual instalments of principal and interest and mature from 1994 to 1998 inclusive. It is expected that the Province of Ontario will continue to make grants equal to the annual payments of debenture principal

TABLE I

	As at June 30	
	1968	1967
St. George Campus	\$38,050,000	\$29,750,000
Scarborough College	19,475,000	18,150,000
Erindale College	3,250,000	850,000
	<u>60,775,000</u>	<u>48,750,000</u>
Less repayments	<u>1,289,900</u>	<u>584,700</u>
	<u>\$59,485,100</u>	<u>\$48,165,300</u>

and interest as they become due. Accordingly, interest expense will be recorded in the accounts on a cash basis to correspond with the interest portion of grants received. Interest accrued on these debentures but not recorded in the accounts at 30 June 1968, amounted to \$1,661,300 (1967: \$1,353,100).

5. In accordance with the University's normal practice, the statement of current operating income and expense does not include a charge for depreciation of capital assets, but it does include charges of \$4,027,900 (1967: \$2,616,500) for additional or replacement equipment. The cost of acquisition of new properties and of construction and initial equipping of new or rehabilitated buildings, less disposals (which amounted to \$31,931,600 in 1968 and \$15,782,600 in 1967) has been added to fixed asset accounts under capital fund assets.

6. The estimated cost to complete land acquisitions in process and to complete buildings under construction at 30 June 1968, or contracted for prior to 10 October 1968, including Scarborough and Erindale Colleges, and including commitments for equipment, is \$51,975,000 (1967: \$43,150,000). The projects involved have government approval and therefore will qualify for substantial government financial assistance.

7. The provisions made for certain University expenditures in any given year depend in part on the availability of funds to meet such expenditures. Amounts provided to meet 1967-68 fiscal year expenditures of this nature are explained below:

a. The amount provided for funding of past service pension cost was \$1,600,000 (as compared with \$1,568,000 in 1966-67). As at 1 January 1966, the unfunded past service liability was estimated at \$6,444,000. It was originally proposed to amortize this cost over 15 years by annual provisions of \$568,000. The excess provisions in the last two years will have the effect of shortening the period required to fully fund the calculated liability or may serve to offset any future increase in the unfunded liability resulting from increased salary scales.

b. The provision for major maintenance and renovations in 1967-68 totalled \$2,310,000 (\$850,000 in 1966-67). The current year's amount includes a special provision of \$800,000 against the minimum anticipated costs of improving the fire protection characteristics of the University's buildings.

c. The provision of \$680,000 for equipment and specific projects made in 1967-68, represents largely provision for acquisition of equipment for the Faculty of Medicine.

8. The University has agreed to guarantee bank loans to staff members for housing up to \$1,000,000 in total. At 30 June 1968, amounts guaranteed totalled \$699,500 against which the University held mortgages as security.

9. Comparative figures for 1967 have been adapted in certain instances to conform with the classification of accounts used in 1968.

10. As at 1 July 1968, the operations and net assets of the Royal Ontario Museum are to be transferred to an independent board of trustees established under The Royal Ontario Museum Act.

I. UNIVERSITY OF TORONTO, BALANCE SHEET, 30 JUNE 1968

(with comparative figures at 30 June 1967)

	Assets		Liabilities	
	30 June	1967	1968	30 June
I. Current Operating Funds				
Cash	\$ 329,700	\$ 279,400	\$ 4,288,100	\$ 4,726,400
Due from trust and endowment funds (per contra)	1,257,500	471,300	229,500	6,700
Due from capital funds (per contra)	441,000	211,700	2,693,800	1,941,400
Short term investments - at cost plus accrued interest, which approximates market value	6,676,700	3,654,900	7,211,400	6,674,500
	8,704,900	4,617,300	1,130,200	868,100
Accounts receivable:				
Fees and residence dues	1,200	300	2,464,800	870,300
Due from related organizations - current accounts	702,400	593,200	680,000	188,900
Provincial grants receivable		1,341,000	229,100	186,800
Other accounts receivable and recoverable expenditures	1,259,900	1,088,700	276,000	20,000
	1,963,500	3,023,200	(580,700)	(677,100)
Stores and supplies - approximately at cost	325,500	293,800	3,069,200	588,900
Prepaid and deferred expenses	416,900	197,200		
	\$ 11,410,800	\$ 8,131,500	\$ 11,410,800	\$ 8,131,500

I. UNIVERSITY OF TORONTO, BALANCE SHEET, 30 JUNE 1968 (continued)

Assets		Liabilities	
	30 June		30 June
	1968		1968
	1967		1967
II. Capital Funds			
Cash	\$ 11,700	Due to current operating funds (per contra)	\$ 441,000
Special funds on deposit for capital purposes	20,000	Construction accounts payable and holdbacks	6,209,100
Sales taxes recoverable on construction expenditures	\$ 238,200	Mortgages payable:	1,443,600
Mortgage receivable	316,100	Central Mortgage and Housing Corporation on residence buildings	2,867,200
Investments held for building programme purposes (note 2) (market value \$7,683,000 in 1968 and \$11,038,000 in 1967)	7,744,300	Other	229,800
Land, buildings and equipment (notes 3 and 5):		3 $\frac{3}{4}$ % debentures due April 15, 1969	11,500,000
St. George Campus	258,422,500	3 $\frac{7}{8}$ % debentures due August 15, 1970	7,500,000
Scarborough College - at cost	20,311,000	The Ontario Universities Capital Aid Corporation (note 4)	59,485,100
Erindale College - at cost	3,821,000	Total liabilities on capital account	88,232,200
Bayview Avenue properties - at cost	2,071,700	Capital trust funds to be expended on building programme - statement 3:	
Construction in progress - at cost	22,372,000	For general programme	4,086,700
Properties leased to others - at cost	585,300	For specific programmes	3,974,000
	307,583,500	General endowment in capital assets - statement 4 (note 3)	238,087,500
Discount on debentures, less amount written off	139,700		224,291,800
Cash and investments held for sinking funds:			
Cash	4,500		
Investments - note 2 (market value \$17,745,000 in 1968 and \$16,925,000 in 1967)	18,354,100		
	18,358,600		
	\$334,380,400		
	\$305,165,500		
			\$334,380,400
			\$305,165,500

I. UNIVERSITY OF TORONTO, BALANCE SHEET, 30 JUNE 1968 (continued)

III. Trust and Endowment Funds

Trust fund assets:				
Cash	\$ 472,600	\$ 274,400		
Student loans receivable	201,400	223,100		
Investments (note 2):				
Pooled investments held for endowed funds (market value \$8,633,000 in 1968 and \$8,817,000 in 1967)	10,135,800	9,990,300		\$ 9,079,600
Investments held for specific endowed funds (market value \$17,015,000 in 1968 and \$16,511,000 in 1967)	15,773,800	15,790,900		16,740,500
Pooled investments held for expendable funds, less reserve of \$180,000 in 1968 and \$150,000 in 1967 (market value \$11,101,000 in 1968 and \$9,568,000 in 1967)	11,270,600	10,279,200		24,921,600
Investments held for specific expendable funds (market value \$2,335,000 in 1968 and \$2,540,000 in 1967)	2,508,800	2,669,500		14,183,900
	<u>40,363,000</u>	<u>39,227,400</u>		<u>38,760,200</u>
				<u>467,200</u>
				<u>40,363,000</u>
General endowment assets:				
Cash	2,500			4,100
Investments held for general endowment (note 2) (market value \$1,281,000 in 1968 and \$1,342,000 in 1967)	1,458,800	1,460,100		2,287,500
Loans to subsidiary organizations	826,200	831,300		
	<u>2,287,500</u>	<u>2,291,400</u>		<u>2,287,500</u>
Assets held in safekeeping for related organizations and others:				
Cash	8,300	400		
Investments	3,396,200	2,887,500		
	<u>3,404,500</u>	<u>2,887,900</u>		<u>3,404,500</u>
	<u>\$46,055,000</u>	<u>\$44,406,700</u>		<u>\$46,055,000</u>
				<u>\$44,406,700</u>
Trust fund liabilities:				
Endowed faculty and departmental funds for specific operating purposes (including funds acting as endowments) - statement 6				\$ 9,079,600
Endowed funds for student awards, lectureships, research, etc. - statement 6				16,740,500
				<u>24,752,800</u>
Expendable funds, including income on endowed funds, available for student awards, lectureships, research, pension funds, etc. - statement 6				14,007,400
				<u>38,760,200</u>
Due to current operating funds (per contra)				1,257,500
				<u>40,363,000</u>
General endowment liabilities:				
Due to current operating funds (per contra)				4,100
General endowment - statement 6				2,287,500
				<u>2,287,500</u>
Liability for assets held in safekeeping				2,887,900
				<u>\$46,055,000</u>

II. UNIVERSITY OF TORONTO, STATEMENT OF CURRENT OPERATING INCOME AND EXPENSE AND NET INCOME OR DEFICIT CARRIED FORWARD YEAR ENDED 30 JUNE 1968
(with comparative figures for the year ended 30 June 1967)

	Year ended 30 June 1968				Year ended 30 June 1967 (note 9)					
	St. George Campus	Scarborough College	Erindale College	Total	%	St. George Campus	Scarborough College	Erindale College	Total	%
Income:										
Student fees	\$ 9,172,000	\$ 528,100	\$ 98,900	\$ 9,799,000	11.8	\$ 8,486,300	\$ 287,400		\$ 8,773,700	14.1
Endowment income from:										
General endowment	117,100			117,100		104,500			104,500	
Endowed trust funds for specific purposes	406,500			406,500	0.6	407,600			407,600	0.8
Government grants for specific operating purposes	193,100			193,100		176,400			176,400	
Gifts and grants for specific operating purposes	126,600			126,600	0.4	109,200			109,200	0.5
Interest and rentals	1,279,800	13,400	1,500	1,294,700	1.6	840,400	2,900	(200)	843,100	1.4
Miscellaneous	299,700			299,700	0.4	92,500			92,500	0.1
Residences and other ancillary departments	1,305,900	81,700	13,100	1,400,700	1.7	1,181,700	42,500		1,224,200	2.0
Revenues from services to outside organizations	1,213,200	900		1,214,100	1.5	1,269,900	1,200		1,271,100	2.0
	14,113,900	624,100	113,500	14,851,500	18.0	12,668,500	334,000	(200)	13,002,300	20.9
Government grants for general operating purposes:										
Federal University grants						8,790,500	168,500		8,959,000	14.3
Province of Ontario grants	45,530,500	945,100	171,900	46,647,500	56.0	25,603,500	1,126,500	235,000	26,965,000	43.0
Ordinary purposes — regular	1,600,000	1,285,000	670,000	3,555,000	4.3	168,000	121,800	101,300	391,100	.5
— supplementary						(185,500)	185,500			
— transfer of regular grant	2,047,100			2,047,100	2.5	1,600,000			1,600,000	2.6
Royal Ontario Museum	1,619,300		46,800	2,649,100	3.2	875,400	807,500		1,682,900	2.7
Interest on capital debentures	64,910,800	3,837,200	1,002,200	69,750,200	84.0	49,520,400	2,743,800	336,100	52,600,300	84.0
Grants and gifts for assisted research	13,309,700			13,309,700	16.0	10,051,500			10,051,500	16.0
TOTAL income	78,220,500	3,837,200	1,002,200	83,059,900	100.0	59,571,900	2,743,800	336,100	62,651,800	100.0

III. UNIVERSITY OF TORONTO, STATEMENT OF CAPITAL TRUST FUNDS TO BE EXPENDED ON BUILDING PROGRAMME, YEAR ENDED 30 JUNE 1968

(with comparative figures for the year ended 30 June 1967)

	1968		1967	
	Trust funds for general programme	Trust funds for specific programmes	Total 1968	Trust funds for general programme
Balance of funds beginning of year	\$6,678,700	\$5,347,800	\$12,026,500	\$6,194,000
Add:				
University's share of distributions from the National Fund for the University of Toronto	51,300		51,300	78,700
Grants and payments on account of grants:				
National Research Council grants for computer Metropolitan Toronto grant for School of Business and School of Social Work Building		113,300	113,300	169,500
Dr. R. S. McLaughlin for Planetarium		240,000	240,000	240,000
Province of Ontario grant for Health Sciences projects	6,575,000		6,575,000	1,900,000
Other benefactions - accommodation grants		245,600	245,600	2,000
Income from capital funds investments	6,626,300	598,900	7,225,200	1,980,700
Appropriation from specific current operating revenue for computer facilities	378,600	296,700	675,300	379,500
Funds available through amortization against operating income of discount on 1970 debentures	10,700		10,700	10,700
Proceeds on sale of properties, less sundry charges	266,500	(4,100)	262,400	200
	7,282,100	891,500	8,173,600	2,371,100
	13,960,800	6,239,300	20,200,100	8,565,100
Transfer from trust funds		20,000	20,000	13,700
Transfer from current funds	25,200		25,200	9,700
Transfers between funds				(90,800)
Transfer to general endowment in capital assets in respect of trust funds and grants applied against construction of buildings and purchase of properties and equipment during the year (statement 4)	(9,899,300)	(2,285,300)	(12,184,600)	(1,977,200)
	(9,874,100)	(2,265,300)	(12,139,400)	(1,886,400)
	\$4,086,700	\$3,974,000	\$ 8,060,700	\$6,678,700
Balance of funds end of year				15,009,300
				5,222,300
				275,000
				4,310,800
				620,900
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600
				78,700
				169,500
				240,000
				1,920,000
				1,900,000
				2,600

IV. UNIVERSITY OF TORONTO, STATEMENT OF GENERAL ENDOWMENT IN CAPITAL ASSETS, YEAR ENDED 30 JUNE 1968

(with comparative figures for the year ended 30 June 1967)

	1968	1967
Balance beginning of year	\$224,291,800	\$194,439,800
Buildings demolished during the year		(3,489,000)
Add:		
Adjustment for land previously written-off Increase resulting from triennial valuation (note 3) and including equipment financed from current operating and trust funds during the three year period ended June 30, 1967	136,100	
Province of Ontario grants for capital debentures	3,354,200	28,159,100
Less interest portion carried to current operating account	2,649,100	
Debenture principal repayment	705,100	432,900
Trust funds and grants applied against construction of buildings and purchase of properties and equipment during the year (statement 3)	12,184,600	3,006,200
Additions to endowment resulting from provisions for sinking funds for retirement of debentures:		
Provincial grants received		1,075,000
Interest on sinking fund investments	897,600	795,500
		1,870,500
Less amortization of discount on debentures	127,700	127,700
	769,900	1,742,800
Balance end of year	\$238,087,500	\$224,291,800

V. UNIVERSITY OF TORONTO, STATEMENT OF SOURCE AND APPLICATION OF CAPITAL FUNDS, YEAR ENDED 30 JUNE 1968

(with comparative figures for the year ended 30 June 1967)

	1968	1967
Funds were provided from:		
Debenture issues	\$12,025,000	\$18,000,000
Net grants and payments on account of grants, income and other additions to capital trust funds (per statement 3)	8,173,600	5,222,000
Mortgage funds received from Central Mortgage and Housing Corporation for residence construction	2,867,200	
Transfer from trust funds	20,000	14,000
Transfer from current operating funds	25,200	10,000
	<u>23,111,000</u>	<u>23,246,000</u>
Funds were applied to:		
Building construction, land and equipment purchases—expenditures made	27,030,100	
Plus increase in accounts payable	<u>4,765,500</u>	<u>19,272,000</u>
Excess (deficiency) of funds provided over funds applied	\$(8,684,600)	\$3,974,000

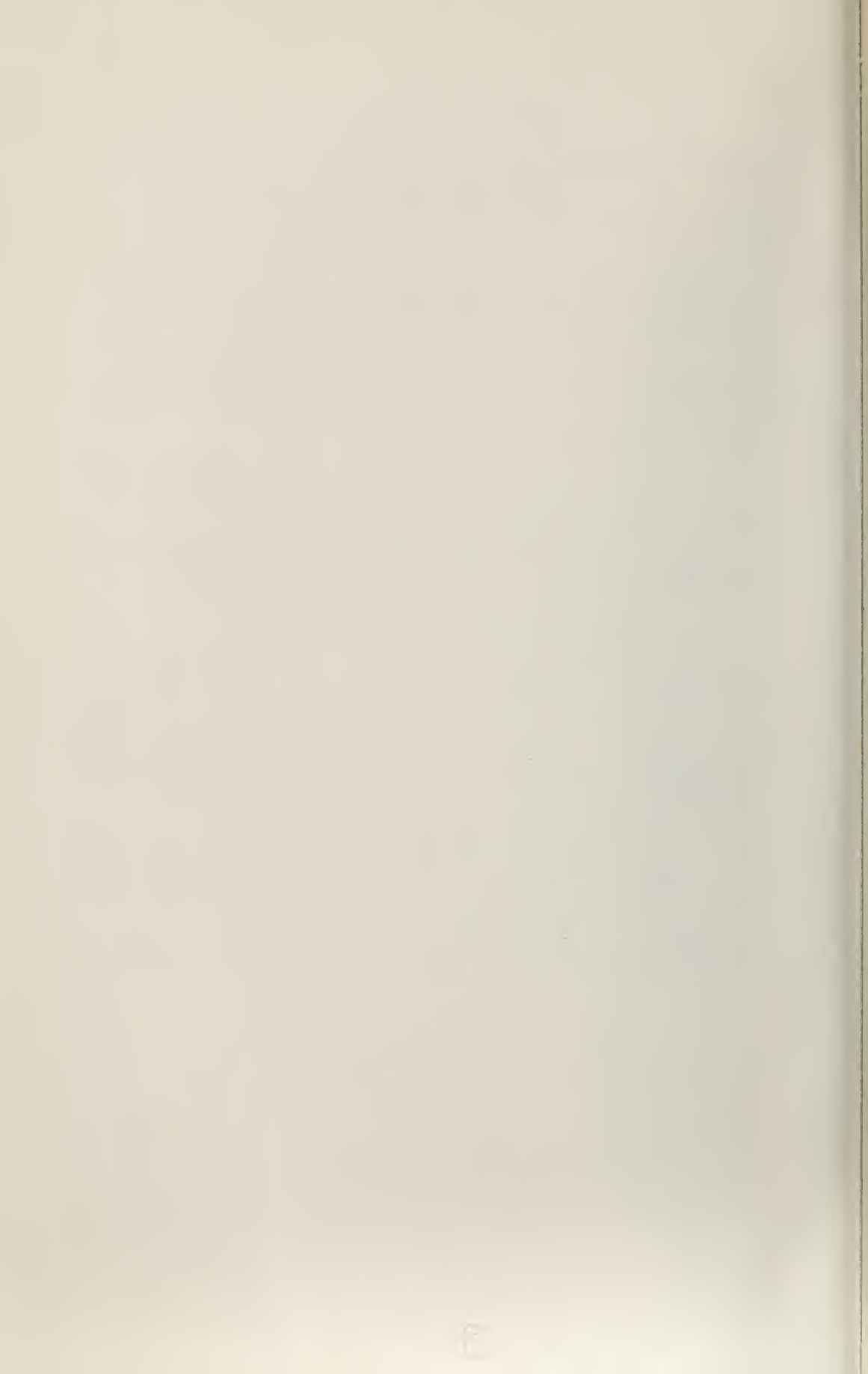
This deficiency is reflected by a decrease in net liquid funds held for capital purposes at 30 June 1968 as follows

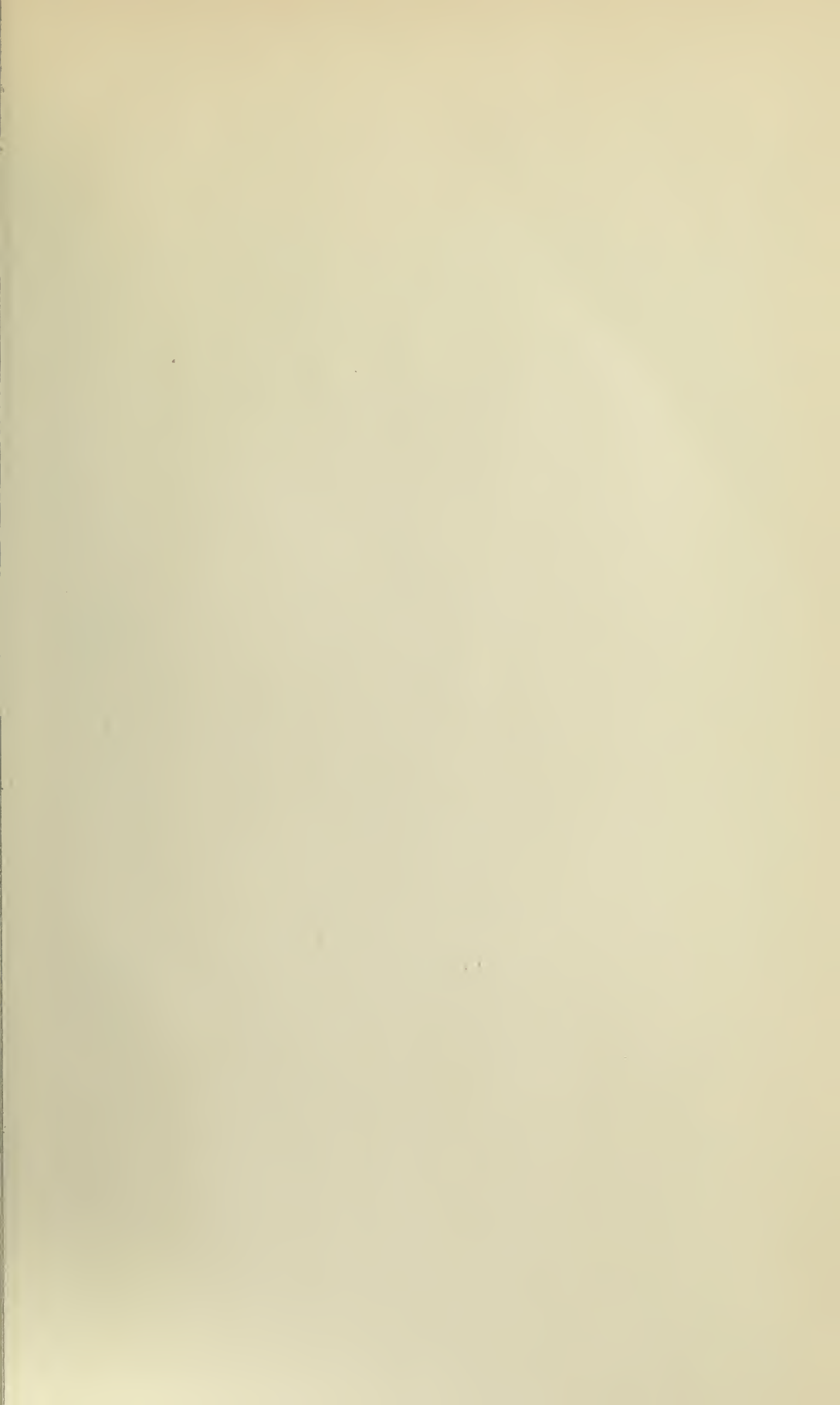
	Balance 30 June		Increase or (decrease)
	1968	1967	
Cash		\$ 11,700	\$ (11,700)
Special funds on deposit for capital purposes		20,000	(20,000)
Sales taxes recoverable on construction expenditures	\$ 238,200	155,500	82,700
Mortgages receivable	316,100	519,300	(203,200)
Investments	<u>7,744,300</u>	<u>11,078,700</u>	<u>(3,334,400)</u>
	8,298,600	11,785,200	(3,486,600)
Due to current funds	441,000	211,700	229,300
Mortgages payable	229,800	26,600	203,200
Accounts payable and holdbacks	<u>6,209,100</u>	<u>1,443,600</u>	<u>4,765,500</u>
	6,879,900	1,681,900	5,198,000
	<u>\$1,418,700</u>	<u>\$10,103,300</u>	<u>\$(8,684,600)</u>

VI. UNIVERSITY OF TORONTO, SUMMARY OF TRUST AND ENDOWMENT FUNDS
YEAR ENDED 30 JUNE 1968

	Endowed funds		Expendable funds (including income from endowed funds)					
	Balance 30 June 1967	Net transfers and other additions and deletions)	Balance 30 June 1968	Balance 30 June 1967	Income earned during the year	Net transfers and other additions and (deletions)	Disbursements	Balance 30 June 1968
Trust Funds								
Scholarships, fellowships, prizes, bursaries, loan and composite funds:								
Endowed	\$ 8,381,200	\$ 48,400	\$ 8,508,800	\$ 763,000	\$ 453,400	\$ (26,600)	\$ 413,700	\$ 782,100
Expendable				1,215,600	26,400	310,700	960,800	1,230,300
Lectureships:								
Endowed	92,400	144,400	228,800	18,000	500	900	2,300	26,900
Expendable		(8,000)		7,900	100		500	7,500
Departmental funds:								
Endowed	2,912,200	189,300	2,020,900	173,600	644,200	(83,800)	15,700	166,700
Expendable		(1,080,600)		2,915,000	108,700	236,100	1,138,900	2,765,100
Research funds:								
Endowed	4,832,100	218,200	1,360,500	776,200	600	(149,000)	68,900	653,000
Expendable		(3,689,800)		6,014,300	47,500	(143,500)	11,614,300	6,688,100
Miscellaneous funds:								
Endowed	522,600	3,200	3,723,000	6,700	12,700	79,900	211,000	77,600
Expendable		(1,532,800)		1,743,200	173,500	(210,400)	377,000	1,421,800
Pension funds:								
Expendable				271,800	12,200		62,500	221,500
SUB-TOTALS: endowed funds	16,740,500	634,300	15,842,000	1,737,500	839,200	(178,600)	711,600	1,706,300
expendable funds				12,167,800	287,400	192,900	14,154,000	12,334,300
Faculty and departmental endowments	8,012,300	1,067,300	9,079,600	102,100	461,100	(416,000)	3,900	143,300
TOTALS: Endowed funds	24,752,800	634,300	24,921,600	1,839,600	1,300,300	(594,600)	715,500	1,849,600
Expendable				12,167,800	287,400	192,900	14,154,000	12,334,300
	\$24,752,800	\$634,300	\$24,921,600	\$14,007,400	\$1,587,700	\$(401,700)	\$14,869,500	\$14,183,900
General Endowment	\$ 2,287,300	\$ 200	\$ 2,287,500		\$ 117,100		\$(117,100)	

*Represents mainly a transfer from the Connaught Trust Endowment Fund for capital expenditure purposes at Connaught Medical Research Laboratories.





LE
3
T476
1967/68
cop.2

Library
Office

Toronto. University
President's report

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY
